CURRENT NOTES

Helping Atari Owners Through the World of Computing

Vol. 14, No. 7

Oct/Nov '94
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CN 1407

Current Notes
Disk-of-the-Month
October/November 1994

BATCH – Run several applications in a row like the AUTOEXEC.BAT on DOS.
Can be used from the AUTO folder or from the desktop.

COOKIE_E – Displays what is in your Cookie Jar.

CN_TOC — AtariWorks database of the Current Notes contents for 1994 and
1993.

DIRLISTE – This Directory Lister program displays the directory to a window,
disk file, or the printer.

DKLOG – Desk accessory intercepts the read/write vector for the disk drives.
Gives a complete log of all activity to the disk, including time.

DOSTESTR – Freeware from A&D Software; tests disk access speed.

E_BACKUP – Simple hard disk backup utility.

EDITH1_0 – Edith 1.0 is a powerful freeware text editor that can handle
GDOS fonts. It features real—time scrolling as an option, which few text editors for
the Atari include. It is ideal as a programmer's editor.

FDF – One of the most powerful duplicate—file—finder utilities available for the
Atari. FDF runs as a TOS or TTP program, and is ideal as a multitasking dupe—
file utility under Geneva or MultiTOS.

JETFIND – A Desk Accessory that is a quick file finder.

LEDPNL27 – Version 2.7 of LED Panel. Shows time, date, drive access (read
and write), capslock, and more in upper right corner of screen. Fully configurable.

MC_COY – Tetris—style game; German.

MDISK60 – RAMDISK program allows you to create a single or double sided
disk drive in RAM, then auto copy files into it.

MIDI_COM – Chain together up to 256 computers and transfer data through
the MIDI port. Work from any computer connected in the chain to pass or receive
the data. Speed test shows passing of data to be about 35 seconds for 100K.

MINI_BBS – This program (from Norway, in English) sets up a BBS on an
Atari. Users with two Ataris can monitor the one running the BBS through the MI-
DI port from a second Atari using a supplied utility.

MORSEMAG – Morse Code Magic — a morse code tutor for the ST/TT. Gives
you the letters and the morse code, then allows you to echo what it does.

NLIGHTB – Tiny app lights drive A: LED on HD or RamDisk access.

NOTEPAD – Notepad by Michail Zuhl is a tiny little desk accessory that lets
you load, save, and print about 40 lines of text.

NU_UTILY – Numbers line in text file. Can output to screen, file or printer.

RAMINIT – Batch file processor that moves/deletes/copies files into a specified
directory or drive. Great for setting up ramdisks.

SAMTRMAC – A simple terminal program that runs as a desk accessory.

SLARTR13 – Tetris clone; works with graphics cards.

TRIYAHOO – Triple Yahtzee clone; shareware game.

The *Current Notes* DOM is mailed automatically to all those subscribers with a
CN DISK SUBSCRIPTION. Disk Subscriptions are $48 a year and include a
double—sided disk filled with the finest in public domain and shareware software.
This disk can be ordered separately for $5 plus $1 S&H from CN Library, 122 N
Johnson Rd, Sterling, VA 20164. Note: all programs are compressed (ZIP) and must
be uncompressed before they can be used.

CURRENT NOTES
Table of Contents
Vol. 14, No. 7: Oct/Nov 1994

News and Announcements

Special Features

Regular Features

Moving? Be sure to send us your new address!

The Cover. This artwork is courtesy of our own David Barkin who submitted some screen shots of designs he created with the program *Inshape*.

Seeking the Heat Seaker

Dear Mr. Waters,

I'm grateful for every news item you publish about the amazing Atari Computers, however, I think some untruths ought to be revealed.

I've seen news items about the Heat Seaker by R.O.M. in Berlin, Germany that interface a Falcon with the Atari laser printers. I contacted them, ordered their product and mailed my check in January '94. They were happy to take my check. However, in the last five months I've made over 20 or more contacts with them by phone, fax, correspondence and even my respresentative in Germany, and thay have always found some excuse not to ship to us.

I believe the product either does not exist, or does not work—and I sure wish they'd return my money.

Thanks for your great magazine, but be careful about what "truths" you publish—others, too, could lose their money.

Ted Elden
Charleston, WV

Which Are 8-Bit? Which ST?

Dear CN

Just enjoyed the *Blackjack Plus 3* review in *Current Notes* (Aug/Sep '94). Can it be played on Atari 130XE 8-bit computer? Where is it purchased?

One advantage of subscribing to *Current Notes* is the software reviews. Some programs are not for my 130XE 8-bit computer or B/W TV. I don't learn this until inside the reading—sometimes there is no reference.

Please ask authors to overture articles with type of computer needed: 8-bit, 16-bit, minimum memory and monitor. Thank you.

Friendly yours,
Joseph E. Hicswa
Passaic, N.J.

[I'm afraid *Blackjack Plus 3* is for the ST. Note that it is relatively easy to spot articles or reviews specifically for the Atari 8-bit. They normally follow Rick Reaser's 8-bit Tidbits column and you will find a drawing of a 5 1/4 floppy disk in the at the beginning of the article or review. Perhaps I can find a nice piece of clip art for the 3 1/2 disk and we can use that for the ST specific reviews. JW]

Super Tic-Tac-Toe

Dear Current Notes,

This envelope contains the demonstration version of *Super Tic-Tac-Toe*. I give this to you to contribute to your library of shareware titles. Please feel free to distribute this program to your readers at will. I greatly appreciate this opportunity to spread my name around to the various users, and at the same time establish a reputation (a good one, I hope). Your magazine is unparalleled in information and resources for both computer users and programmers. Thank you for your continued support of the Atari computer line.

Sincerely,
George W. Garner
Stroudsburg, PA

[Thank you, George. Super Tic-Tac-Toe will be on the next game disk we release in the library. —JW]

Needed: Update on That's Write 3

Dear Joe Waters,

...Thank you for Howard Carson's article (on piracy)—I'd like to see more debate on this. I agree with most of what he says.

I am a user of *That's Write 2*. I understand that an upgrade to *That's Write 3* is available. I'd like you to have someone review it, so that I can decide whether to upgrade or stick with what I have. I am practically a computer novice using *That's Write 2* to write tech articles on complicated antique clocks. It has met my needs. But Compo has been extremely helpful whenever I had a problem.

Leo Jaroslaw
Acton, MA

[Perhaps one of our readers can send us an update on the latest version of *That's Write*. Any takers? —JW]

Sweet Success—with My Atari!

Dear Current Notes:

I wanted to let you know that I've recently published my second nationally-acclaimed booklet with an Atari ST! It's called MUSIC VIDEO 101 - HOME CAMCORDER PRODUCTION. It has been written about in BILLBOARD (April 3-) and HIT PARADER magazine (June '94 issue.) Photocopies of the articles are enclosed. Hit Parader called it, "the best how-to manual that anyone making videos can use."

MV101-HCP was created with:
Software: *1st Word V1.00*
            PageStream V1.82
            Degas Elite (cover art)
Hardware: Atari 1040 STE
            Canon BJ-5 Bubble Jet
            printer
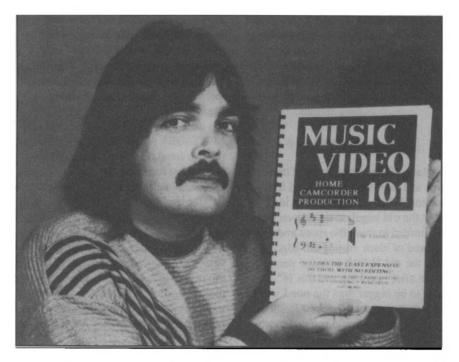
I bought my very first computer—an Atari 520 ST—in February '86, and published the original broadcast version of MUSIC VIDEO 101 in July '86. It was featured in USA TODAY and BILLBOARD magazines. And exceprts appeared in the May/June '88 issue of VIDEOMAKER magazine. I still own the 520, and use the original SM124 monitor with my STE.

My very first experience with a computer occurred in November, 1985. I had always balked at them, until I met the "mouse." Thanks to a radio commercial on a local rock station, I discovered a print shop (alphaGraphics) that rented time at $12 per hour on a Macintosh and LaserWriter printer. "Desktop Publishing" was the latest buzz in the business world, so I figured it was worth my time to check it out.

I dropped by for a free hands-on demonstration. It was fantastic! Most importantly, it was fun and the basics were easy to learn. A new window of opportunity opened for me that day, although at the time, I thought it would be limited to the creation of brochures,

logos, letterheads, and print advertisements.

The next month—on New Year's Eve—I was sick at home with the flu. I spent most of the evening brainstorming about business plans for 1986, and that's when I got the idea to write and publish MUSIC VIDEO 101. I knew that such an ambitious project would require the word processing power of a computer and take several months to complete. Since I had taken only one quarter of typing in the 9th grade (9 years earlier), my typing skill was limited. The ability to edit and make corrections on a computer screen would be vital. The most cost-effective option was to buy a computer. There was only one problem . . . the Macintosh was out of my price range.

During January, I read every computer magazine that I could get my hands on. I decided to publish the book myself, using a computer and word processing software, and then print the "Master" pages with a dot-matrix printer. At that time, the Panasonic KXX-P1091 printer was tied for first place (as far as print quality) in Consumer Reports magazine. That was good enough for me. On the computer front, I still had mouse fever.

As luck would have it, the 520 ST had been recently introduced. Several computer magazines were predicting a successful future, and at the time, it cost about half as much as a Mac. I decided to take a chance. (And it included a word processor, *1st Word*, which I still use to this day.)

I bought my ST at a local computer store on February 3. Eleven days later, my printer arrived by mail order. The ensuing combination was rather unique, as I learned how to operate the computer system while the creation of the booklet was in progress. MUSIC VIDEO V101 was published on July 8, 1986.

I worked on the second booklet off-and-on for several years. Last October, November, and December were unreal. It's all a blur. I took Christmas day off.

I wish you the best of continued success with *Current Notes*. I hope you will share my story with your readers. Perhaps it will inspire someone to dream...

Sincerely,
Timothy Dwelle
Douglasville, GA

[Thanks, Tim. I'm sure your story may very well inspire some of our readers to expand their horizons and put their Atari computers to work! By the way, if anyone would like to try making their own music video, you can order Tim's MUSIC VIDEO101—Home Camcorder Productions for only $7.95 plus $1 shipping (USA). Send your name, address, zip code, phone number and check or money order to: TIMTV, PO BOX 2251, DOUGLASVILLE GA 30133. (Note: shipping is $2 for Canada and $3 for other foreign orders.) —JW]

Ten Ways ... And a Few Errata

Dear Joe,

I was surprised and pleased to find my article, "Ten Ways to Nurture a Freshly Hatched FALCON030" published in the May issue. I hope that it helps keep a lot of Falcon owners busy, extending the popularity of my favorite computer!

Since the article was written, I've discovered a few errata worth mentioning: Where I discuss RAM upgrades, I said that the Falcon has a two-year warranty; it is actually a one-year warranty (much better than the 90 days my last Atari computer had)! The Atari Compendium's recommended price is actually $50, but it's been advertised for $45. And when discussing MultTOS, I mention that the "help" key displays a series of dialog boxes containing keyboard shortcuts. This veature is part of GEM, and can be used without loading MTOS.

Mostly minor stuff, but I wanted to clear these up. Thanks again for helping me "spread the word"!

Scott Chilcote
Centreville VA

1980's Hardware Won't Run 1990's Software

Dear CN,

Recently, Sam Tramiel has been the subject of a lot of criticism resulting from some of his recent business decisions regarding the Atari computer platform.

I cannot blame Sam Tramiel for his apparent drop of support for the Atari computer. it must be very frustrating to have a userbase that refuses to upgrade. I have recently read in your letters column a complaint from a man who could not run AtariWorks because, apparently, he did not have enough RAM. I am sick and tired of hearing complaints from people trying to run 1994 software on 1986 equipment. Atari, and other developers, should not have to try to write software that will work on obsolete ma-

chines. (What other platform assumes you have a 720k disk, what other platform assumes you don't have a hard drive, and what other platform assumes you only have 32k of vram. There are exceptions, but, for the most part, this is true.) The entire basis for upgrading is to use better software. Most Atarians feel the intention of upgrading is to run applications faster, thus, feeling that they don't have reason to upgrade, they don't. If the Atari standard were higher, we may start to see some truly fascinating pieces of software that other platforms are already enjoying.

Because of this aberrant behavior found in the Atari community, Atari has clearly lost its competitiveness in the PC world. For a lower price, you can get a PC with sound capabilities similar to the Falcon, twice the RAM, triple the hard drive, quadruple the processing power, and 100 times the support. It's true folks, I see it every day. How is Sam supposed to keep up with this when such a small percent actually upgrade? I don't expect him to, and neither should anyone else. I am not saying to go out and buy a myriad of new supplies, especially if you are perfectly satisfied with what you have. I am simply saying that people who use old hardware should not expect to have the best software at their disposal. Anyone still using the original 80's 68000 processor has no right to complain.

My friend made an interesting point when he said, "The same attitude that has kept the Atari world alive for so long is the same attitude that has brought it to its knees."

Jason Bajema
Grand Rapids, MI

Getting a Full Screen on the SM147

Dear Joe and Joyce,
Read your editorial with sadness this month but I knew it was coming. There is a yankee saying that you can lead a horse to water, but you can't make him drink. One can extrapolate that to the Sunnyvale group and no matter how hard we tried or hoped, they killed the platform with neglect.

Enclosed is a short subject you can use as a filler where ever you

need it or if you prefer, dump it into the old shredder. As long as you're doing "IT," I'll be there with you, so hang in there till it becomes non-sustaining. The handwriting has been on the wall for some time in spite of the genius.
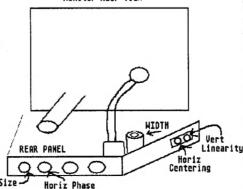
Best Wishes
Dave Newell
Pepperell, MA

Many of you probably have done the same as I, and bought the Atari SM147 monitor. When I plugged mine in, I found the old bugaboo the screen size was limited to meet the specs and had a big band of black around the edge. Well, the old 12-inch monitor was full screen after tweeking and this 14" was going to be bigger than the one I was retiring or it was going back. After looking at the back, I could see that more serious adjustment was in order.

After 30 years in R&D, opening the case to see what is inside is a normal situation and, after determining the inside controls weren't labeled, I decided to find out which was which. After years of fixing TV's and Monitors, I knew the width adjustment was a coil, so I got my plastic hex tool out and tweeked the coil nearest the high voltage transformer until the screen was full width. I adjusted the vertical size until I had a full screen, then I booted up a data program that had lots of vertical and horizontal lines, and I adjusted the Horizontal phase and the Vertical linearity along with the width and vertical size until I had a full screen and the best linearity I could achieve.

I am pleased with the results that I have achieved. I have a full screen and pretty good linearity. For those of you that are not faint of heart and want to see 14 inches of monitor (that you de-

SM147
Monitor Rear View

serve), give it a go and Tweek that beast. The High Voltage Power supply on my SM147 is very solid and allows for the expansion with ease. I assume that they all have the same stout supply and you will have no sweat achieving the full screen. Remember when you are inside the monitor, there are HIGH VOLTAGES present and you should use the one hand rule when adjusting the beast: One hand for you and one hand for the adjustment. Stick the one for you in your back pocket whenever the monitor is ON!! Enclosed are the drawings of what is where to the best of my knowledge. You're on your own. I am sure that once you open the monitor up the warranty is voided. If you still want to do the adjustment and are not comfortable working inside the monitor, find someone who knows his stuff to do the tweeking.

AtariWorks Hint

Dear Joe,
I found out through many hours of trial and error how important the drivers.app is to AtariWorks. Click on it to change page size and print quick draft copies. With my printer, this has to be done in addition to "Page setup" within the program. Maybe this will help someone. I wasted a lot of 3 x 5 Rolodex cards before figuring it out.

Pam Brown
Memphis, TN

Anyone Gotten Append and Merge to Work?

Dear Mr. Waters,
First, it can only be presumed that the volume of your subscription list supports your motto "Helping Atari Owners Through the World of Computing." As a subscriber for several years, let me add my thanks and appreciation for *Current Notes'* continued interest.

Alan Riesbeck's interesting article, "Using Two Computers and One Monitor," April 1994, made mention of his using Michtron's *3D-Calc*, "and it worked."

Since October 1993, I have been attempting to use the "Append file" and "Merge file" features of *3D-Calc* (version 3.04), also obtained from Oregon

Research. This inability was discovered "early on" while doing the accompanying tutorial. This package includes several spreadsheet files which will "Append" and "Merge" perfectly. However, if these files are simply "Read" and "Save," they can no longer "Append" and "Merge." Any spreadhseet created by myself, including those suggested by the tutorial, will not "Append" or "Merge."

These failures apply to the ST (4 meg) as well as the Falcon (4 meg) with all auto and accessory files removed. Because the supplied spreadsheets perform, I have attempted to recreate them, without success. The *3D-Calc, Jr.* version is of no help in this regard. Oregon Research is also experiencing this problem and cannot offer a solution.

3D-Calc could be a worthwhile package, but any extended use would require the ability to "Append" and "Merge." Perhaps Mr. Riesbeck or one of your readers have experienced and resolved this problem. Any help would be appreciated.

Sincerely,
Walter Kordas
San Francisco, CA

A Pure Pascal Fan

Dear Current Notes,

I would like to make a few comments regarding Rick Schokman's review of *Pure Pascal* in the Jun/Jul 1994 issue. As a long time user of Pascal on many platforms, and a very satisfied user of *Pure Pascal*, I was pleased to see this excellent development system get some much deserved coverage.

The first paragraph leaves the reader with the feeling that *Pure Pascal* is only suitable for learning. Pascal was, indeed, originally designed for just that purpose. However, the language has evolved over the years. I don't want to start a "My language is better than your language" discussion, but would like to point out that the *Pure Pascal* package is a very powerful programming environment that is more than capable of being used for commercial software development.

The review mentions Borland Germany as being "the original creators of Pure Pascal" but the degree of compat-

ibility between *Pure* and the IBM PC *Turbo Pascal* isn't stressed. I have read the documentation that comes with the IBM PC version of *Turbo Pascal* and found it to be virtually 100% applicable to *Pure Pascal*. Even the dialog boxes used by the two programs (for example, the search/replace dialog) are identical. Since *Pure Pascal* includes all the "DOS" routines, just about any source code written for *PC Turbo Pascal* will compile with no problems under *Pure*.

One feature not covered in the review is the speed of the *Pure Pascal* compiler. I have a Pascal source file that is 377k in size and *Pure Pascal* takes less than 30 seconds to compile and execute the source code with full debugging. This is on a stock Falcon030 in 800x600 resolution. In ST monochrome resolution, the same source compiles in under 20 seconds! By comparison, *Personal Pascal* from OSS/ICD takes several MINUTES to compile source code of the same size.

In my opinion, the biggest weakness of *Pure Pascal* is its lack of "in-line assembly." While *Pure Pascal* does inlcude a good assembler, the ability to embed assembly instructions "in-line" with Pascal code would be invaluable. Fortunately, calling assembly subroutines (and passing parameters back and forth) from *Pure Pascal* is a straightforward matter. Unfortunately, implementing assembly routines this way isn't nearly as easy as doing it "in-line" would be.

I agree with Mr. Schokman's assertion that the inclusion of a resource editor would greatly improve the value of *Pure Pascal*. It would certainly make for an "all in one" programming solution. However, it should be pointed out that there are several quality resource editors available, both commercially and through public domain/shareware channels. The availability of pd/shareware resource editors somewhat minimizes the importance of, but does not excuse, one not being included with *Pure Pascal*.

In closing, I would like to recommend an excellent Pascal programming book that is available in bookstores such as B. Dalton's and Waldenbooks. Turbo Pascal 6: The Complete Reference by Stephen K. Obrien (Osbourne/McGraw

Hill - ISBN 0-07-881703-X) should provide the answers to all the questions a *Pure Pascal* programmer would have concerning the Pascal language itself. I have found this book to be superior to Borland's English documentation for the PC version. Naturally, the *Pure Pascal* programmer wanting to develop GEM applications should acquire The Atari Compendium by Scott Sanders. Writing a GEM application in *Pure Pascal* becomes an easily accomplished task when using the Compendium in conjunction with the online help system.

Sincerely,
James L. Collins
Joplin, MO

Kudos for TextPro Series

Dear Frank Walters,

Your explanation of the new LINK2.MAX and LINK4.MAX macros for *TextPRO 5.2* alone made the cost of a *Current Notes* subscription worth every penny! Over the years, I have played around with the various versions of *TextPRO*, but never did use it because the documentation was so poorly written. I had tried off and on several times to use the TP banks, and never could successfully load a long text file. For that reason alone, I never did register TP. After your initial series of articles in *CN* concerning TP macros, I registered my copy of 5.2 with Ronnie Riche and decided to give it one last chance. I received my registered copies from Ronnie the same day I got your letter, and haven't had a chance to look through the two diskettes he sent me, but I am definitely going to make an effort to learn TP this time. I have been relying on *AtariWriter Plus* over the years, and have the SpartaDOS modified version running from my hard drive. I can't wait until you and Rick Reaser get the TP documentation revised and into understandable English—maybe I'm just a hard-headed old fool, but every time I tried to do something with TP, the documentation appeared to be in a foreign language. I had finally given up in frustration, until your articles came along and made it all seem so simple. Thanks,

Charles Cole

Brutal Sports Football Now Available

Imagine no rules on the footbal field as you decapitate your opponent as he runs toward the goal line. The only game you'll experience it on is *Brutal Sports Football*, and the only video-game system you'll play it on is Atari's Jaguar. The first of many third-party video games, *Brutal Sports Football* also is the first sports-related, fast-action game developed for the 64-bit Jaguar system.

Initially released for sale in mid August, with national availability in September, *Brutal Sports Football* represents a hybrid in video games—coupling the sporting elements of rugby with the blood-and-guts mayhem of the most popular video games. The product is designed for action gamers and football fans who are tired of the same old set of moves and rules. The new rules are simple ... there are none. Players simply pick up the ball and run for their video game life while avoiding the head-hunting opposition.

"*Brutal Sports Football* was our chance to work with the most sophisticated video game platform on the market, the 64-bit Jaguar," said Telegames' Terry Grantham. "We've been developing software for Atari hardware since 1982 and believe this is our most innovative product yet." *Brutal Sports Football*, retailing for $69.95 at consumer electronics and toy stores nationwide, is the first of numerous games Telegames is developing for the Jaguar platform, including *World Class Cricket, Ultimate Brain Games, Casino Royale,* and *Operation Starfish (James Pond 3)*.

Atari's Jaguar game system has approximately 30 software titles planned for release before the holiday season. Popular titles in the works include *Alien Vs. Predator, Dragon—The Bruce Lee Story, Doom, Busby, Troy Aikman Football,* and *Kasumi Ninja*.

"We've challenged our software designers to develop games that use the full technological capacity of the 64-bit Jaguar," said Atari Corporation President Sam Tramiel. "This means players can look forward to some incredible titles in the near future because our developers are not constrained by less sophisticated 16-bit technology."

Toad Computers Catalog Available

It's official, it's for real, it's packed with stuff and it's headed your way now! Watch for the new Toad Computers PRODUCT CATALOG! It's being mailed to 25,000 of our closest friends and you're probably one of them! If not, call us TOADAY and get on our mailing list! We want to make sure you have the latest information on the products available for your Atari!

The Toad Computers PRODUCT CATALOG is a full 56 pages packed with software, hardware and accessories picked EXCLUSIVELY for current and prospective Atari owners!

Toadfax Fax-on-Demand System

TOADFAX—an automated, voice activated FAX-On-Demand system—is now available to distribute pricing and product literature to Toad customers. Simply use your touch–tone phone to call the system and enter the numbers of the documents you wish to receive. You can choose between entering your FAX number and having our system call you back, or receiving your documents on-line at the time of your call.

TOADFAX is intended to cure a common problem in today's fast paced computer market—information obsolescence—and gives customers a fast and easy way to check up on prices and product information. TOADFAX can be reached by dialing (410) 544-0098.

> ### Toad Computers Holiday Festival '94:
> *Saturday December 3th 10:00am - 7:00pm*
> *Sunday December 4th 10:00am - 5:00pm*
> *Admission is FREE!!!*

Toad Computers is proud to announce HOLIDAY FESTIVAL '94, which will take place on December 3rd & 4th, 1994. Last year's event drew a surprise 500 people from all over the country and featured guests and exhibitors such as Dave Small, Joe Waters, Publisher of *Current Notes*, Charles Smeton (*STraight FAX!*), Dave Troy (CN Columnist / Toad Co-owner), Tim Reyes, MajicSoft, Carter's Creative Computer, and Greg Ondo of Steinberg Jones.

All Atari developers and user groups are invited and will be given FREE table space if pre-registered by November 1, 1994. Tables requested after that time will be $150 each. Space will be allocated on a first come, first served basis.

We'll feature free hot apple cider, door prizes and more! We'll also have another raffle to benefit Habitat for Humanity (which raised over $500 last year!!)

The show will take place at TOAD COMPUTERS in the Park Plaza Shopping Center in Severna Park, MD. There's unlimited free parking and lots to see and do nearby, as we're nestled between Washington, Baltimore, and Annapolis.

Confirmed 1994 attendees include Tom Harker, ICD Inc. (CatBox and Star Battle); MajicSoft; Binary Sounds (Hybrid Arts Product Line); Joe Waters, Publisher of Current Notes; Greg Ondo, Steinberg Jones; Charles Smeton (STraight FAX!); Dave Troy (CN Columnist / Toad Co-owner) with many others in the works.

Toad Computers, Park Plaza Shopping Center, 570 Ritchie Highway, Severna Park, MD 21146-2925. Phone Numbers: Voice (410) 544-6943; Orders (800) 448-8623; FAX (410) 544-1329; BBS (410) 544-6999; TOADFAX (410) 544-0098; MUSIC/MIDI (410) 544-7495. For maps, directions, hotel accomodations, or any other information you may need, please call us!

MYTEK Prism Studio—Limited Time Offer

Prism Studio's very future, rests in your hands. I am looking for six confirmed orders to appear by March 1st 1995. Yes, that's right, I said its future depends upon receiving these orders by the deadline date mentioned.

To anyone who is trying to market a product to the ever shrinking 8-bit Atari user base (or has tried and died), you know the reality of the saying, "When in a business for oneself, it is wisest to use other people's money to produce product, than to use your own." This seems to be especially true in this marketplace, where you may only sell one or two of something, hardly enough to justify the cost of having professionally made P.C. Boards produced. It is for this reason, I need to see a minimum number of orders, before setting the production wheels rolling. I have already written off the R&D time and materials this product required to materialize, but I simply can't afford to sink any more money into the venture, if it isn't what people want or need.

Here's how it will work: between now and March 1st, I will accept orders at the going rate of $184 ($179 plus $5.00 S&H). Preferably, these orders should be via personal check written out to MYTEK. I will HOLD these checks until the required number of orders have been met, at which time they would be cashed and production would begin. If the required number is not met, than all checks will be returned to their owners, and the Prism Studio project will be shutdown. If you want COLOR genlocking on the Atari 8-bit platform, than please don't let this happen. If, for whatever reason, you change your mind about waiting for the product, and assuming you had previously sent in a check, I will promptly return your check, if requested, with no hard feelings.

This really is a good deal for such a product as this (compares with similar units on the IBM platform going for $300 or more). Don't take my word for it, check out the review in the June/July issue of *Current Notes*. If you support this product, then I will support you, by offering other products to expand upon this one, adding even more features.

When the six orders have arrived, I'll let everyone who ordered know, personally, with a phone call (be sure to include your phone# when you order). Contact: MYTEK, P.O. Box 750396, Petaluma, CA 94975-0396

Thanks, sincerely, Michael St. Pierre.

Atari 8-bit Omnibus

Since Atari dropped the 8-bit computer line, it's become progressively more difficult to find software and equipment

for our Atari 8-bit computers. The days of *Antic* and *Analog* issues filled with ads are gone. Many suppliers and software authors can no longer afford to advertise.

Back in April, I decided to try to remedy this. I sent out a mailing to over 90 suppliers, inviting them to send in free ads for "The Atari 8-bit Omnibus." This resource guide will be available for sale beginning October 10th for $5 US, including shipping and handling. Once it's printed, I will release full ordering information. For further information, contact d.paterson2@genie.geis.com.

Super Products Email Address

James Bradford, owner of Super Products (see CN Aug/Sep '94, page 10), now has an e-mail address. You now can contact him electronically for more information at: masstorage@closer.brisnet.org.au

TextPRO Maintenance Upgrade #1

Ronnie Riche has released Maintenance Upgrade #1 to *TextPRO v.5.20X*. The term "Maintenance Upgrade" indicates that memory locations are identical to the original 5.20X dated 6/30/94. Maintenance Upgrades are identified by the release date in the title screen.

These upgrades of the TP v5.20X program include enhancements and bug fixes to the original program. They use the same add-ins as the first release. To upgrade your *TextPRO* system, just copy the new program file over the old one. No changes in any support files are necessary.

Though all add-ins for v5.20X will work as before, some of the upgraded programs may include enhanced add-ins or have a different add-in built into the program. Just replace these add-in modules on your disk, or in your macro files, as desired.

Source for the upgraded program itself is not distributed, but source for any new or enhanced add-ins is included in the upgrade archives.

TP520XM1.ARC is available on GEnie and CompuServe. It can also be downloaded from T.A.C.O. Bell BBS. ATASCII only for new callers. 4PM-11PM Central. 300-2400 baud. (904) 785-2333.

TWAUG Products for 8-Bit Enthusiasts

Tyne & Wear Atari User Group (TWAUG) produces a bi-monthly newsletter to give support to Atari 8-bit users all over the world. The newsletter is produced on A5 size paper and has 32 pages full of articles/reviews, tutorials, letters, ads and much more. With each issue we give a double-sided disk of Public Domain (PD) software. Subscription prices are: UK, 2 pounds sterling per issue or 11 pounds sterling for 6 issues. Europe, 2.20 pounds sterling per issue or 12.50 pounds sterling for 6 issues. Elsewhere, 2.50 pounds sterling per issue or 14 pounds sterling for 6 issues. Prices include postage and packing. Payment can be made by cheque made payable

in English pounds, by International Money Order, or send payment in your own currency by registered mail.

TWAUG also has a Public Domain (PD) library with around 400 software titles. Why not drop us a line and we'll send you a copy of our library list. There's sure to be something in there that you've been looking for.

The Complete and Essential Map is a new book produced by TWAUG for Atari XL/XE computers. This book will not only be a great help to those just starting out on programming, but will also be a must for more advanced programmers. *The Complete and Essential Map* comes in two volumes containing more than 400 pages. The book costs 16 pounds sterling plus Postage and Packing (P&P). P&P costs are: UK 1.50 pounds sterling, Europe 2.50 pounds sterling, US and Canada 5.50 pounds sterling air mail or 2.50 pounds sterling surface mail, Australia 6.50 pounds sterling air mail or 2.50 pounds sterling surface mail. To place your order, or get more information, write to TWAUG at the following address. TWAUG, P.O. Box 8, Wallsend, Tyne & Wear NE28 6DQ United Kingdom. Why not give us your support and help to keep the Atari 8-bit alive!

From Suzy B's Software: Two Volume CD Set

Suzy B's Software has been collecting and cataloging Atari Public Domain/Shareware programs and files for the past five years. Known for the "Honey of a Deal" they offer their customers by allowing them to customize the disks they order, Suzy B's now offers, in teamwork with Toad Computers, an even sweeter deal. Their complete software library is being released in a two volume, 11,000 file, 1,300 meg CD collection. These CDs are not 11,000 files of fluff either. Suzy B's has removed all the outdated versions of programs unless an older version has some specific features that make it useful in and of itself. This library is all the evidence needed to show how busy they've been in combing through the online services throughout the country.

Each file is individually described, sometimes with a description reaching over a page (the main catalog is over 3.6 megabytes of ASCII text!). The files are grouped in such ways as to allow you to easily buzz through the CDs. There are 51 separate categories, and each file within a category resides in its own folder, with a catalog description within each folder. Since all of the files are uncompressed, you can run them directly from the CD, saving a lot of hard drive or floppy disk space!

What's the cost? Not much at all. You can get our two volume CD for only $69.95, either from Suzy B's Software or through Toad Computers. Now that's "a honey of a deal!"

And what do you get when you order this amazing 2 CD set? A double CD jewel case with 2 custom-made CD ROMs packed inside! It's attractively packaged and a must-have for any serious Atari user! It's compatible with all ST computers. ExtenDOS is recommended for accessing the disks and may be purchased from Toad Computers for $19.95.

[Suzy B's Software, 3712 Military Road, Niagara Falls, NY 14305. Phone 716-298-1986. Toad Computers, 570 Ritchie Highway, Severna Park, MD 21146. Phones: (800) 448-8623 Orders; (410) 544-6943 Information.]

MidiTrack ST Moves to Binary Sounds

Binary Sounds is pleased to announce that we have taken over the marketing, distribution, and support of *The Midi-Track ST Series (Smpte/Edit/EasyTrack), GenEdit, EZ-Score* and *MidiMaze* of Hybrid-Arts Fame. Stefan Daystrom will continue support and upgrading of the MidiTrack ST Sequencers. We are also lowering prices to make our products some of the best values for the amateur, semi-pro and pro musician!

List prices are as follows. In addition, we are offering special pricing thru Oct-31-1994 as an incentive to get to know us. Demo's will be available on Genie, Delphi and Compuserve as well as the Midiworld BBS and other fine BBS's in your neighborhood!

Product	List Price	Special
SmpteTrack Platinum 7.1 W/SMPTEmate Plus	*To be announced Soon!*	
EditTrack Platinum 7.1	$149.95	$99.95
EditTrack/SmpteTrack Upgrades to Platinum 7.1 (software and manuals only)		
From Gold 6.xx	$70.00	
From before 6.xx	$95.00	
EditTrack Gold	$89.95	$59.95
EasyTrack	$24.95	$19.95
GenEdit 2.0	$124.95	$99.95
EZ-Score Plus	*To be Announced Soon!!*	
MidiMaze	$24.95	$19.95, 2/$35

All prices are in U.S. Dollars plus shipping and handling.

For all those Platinum users who received Gold Manuals with addendums, we now have Platinum Manuals available for $18.95 plus shipping.

Binary Sounds is operated by: Rick Ladage and Bob Semaan in Houston, TX. USA. We can be reached by E-mail or snailmail or tele or fax!

Rick Ladage: Genie (R.Ladage); Delphi (Bondservant); Internet (bondservant@delphi.com).

Bob Semaan: Genie (B.semaan); Delphi (Bosem); Internet (bosem@delphi.com).

[Binary Sounds, 431 Oak Dale, Houston, Tx. 77477 USA. Phone: (713) 776-9118 9am-9pm Cental Time Mon-Sat; (713) 449-3129 6pm-9pm Tue-Thurs. Look for us in the Binary/Barefoot/Hybrid areas of Genie, Delphi and Compuserve.]

DMC Announces Calamus SL Upgrade

We are very pleased to announce a new and exciting upgrade for *Calamus SL*. Besides the usual bug fixes, cleanup

and performance enhancements, mostly transparent to our customers, a few new features are now available. The first and foremost is Spot Color. *Calamus SL* can now accomodate, not only Spot Color, but the automatic generation of 4 color separation of spot colors.

Another new feature, that will become more important to us all as time passes, is the new enhancement to the Document Converter that allows bi-directional compatibility between the NT version and this new Atari version of *Calamus*.

The new Document Converter insures compatibility between your *Calamus SL* documents and the various NT versions of Calamus: for the DEC Alpha, MIPS, IBM Power PC or Intel computers.

A new frame type is now available, called Uniframe. When you apply StarScreening, (more on this exciting new module later), for example, to a raster graphic frame, a uniframe will result.

The TIFF export driver has been enhanced.

Your cost to upgrade from your existing August or November 93 update of *Calamus SL* is US $49.95 or $70.00 Cdn. If you own a version of *Calamus SL* prior to August 93, the upgrade cost is US $119.95 or $170.00 Cdn.

Font Special — Effective immediately, until October 31, 1994, accompanied by your upgrade order for *Calamus SL*, all our original professional typesetters fonts in-house, licensed from such world-famous font foundries as AGFA, Berthold, Linotype and URW, are $10.00 each, providing you select at least 5 typefaces. Pick and choose your favorites and get your order in now.

All our Calamus CFN's from your Atari are compatible with the Windows NT version of Calamus.

New Calamus Modules

StarScreening — The new StarScreening module offers you the latest technology, FM or frequency modulated rastering techniques, also called stochastic screening. Unlike others that now have this capability, we do not require a PostScript RIP, using our own internal SoftRipping technology instead. This allows us to choose to define an FM raster by individual frame, even mixing and matching the two different techniques on the same page. The StarScreening module allows you to output FM rasters on laser and ink jet printers, up to a resolution of 750 dpi. It includes control lines for the adjustment of color and black and white output. Your cost for this extraordinary module is US $150.00 or $210.00 CDN. Look for sample TIFF's uploaded to GEnie, Delphi and Compuserve with Starscreening already assigned. Download and test the result on your printer today. You're going to love it!

Blend Module — The Blend Module is a tool for creating raster graphic areas with gradient fill patterns. Choose between two types of blends; linear and circular. Within each type of blend there are a number of user-definable options for creating various styles of blends. Again, look for samples on Genie, Compuserve or Delphi. Your cost for the new Blend Module is US $50.00 or $70.00 CDN.

PageTool — Page Tool allows you to view all pages in a document in thumbnail format, on screen, as well as moving, inserting or deleting them. Samples will be uploaded the next few days to better illustrate the power of this new module. Your cost for the new PageTool Module is US $50.00 or $70.00 CDN.

For those of you still using an earlier version of *Calamus SL* prior to August 1993, you REALLY NEED TO UPGRADE at this time. The last version, prior to this release, was from November 1993, which in turn, was a maintenance update of the August 1993 version in which the overall performance of *Calamus SL* was dramatically improved. A number of significant features were added, as well as new features and modules, which were included at that time.

Calamus User-to-User Tips

USER-to-USER files are written by *Calamus SL* owners. The authors have presented their work to assist other users and, at the same time, have earned discounts on their own future purchases from DMC Publishing. I highly recommend these files to everyone, regardless of your experience with *Calamus SL*. They are full of hints, tips and tutorials.

All USER to USER TIPS files are the copyright of DMC Publishing, Inc. (1992, 1993, 1994) and ALL RIGHTS are RESERVED.

At the time of this printing, there are hundreds of USER-to-USER files in the DMC Library on GEnie available for downloading. For those of you without GEnie access, we have compiled some of these files for you in various sets. Without a doubt these can be of assistance to you. As you master *Calamus SL*, you may consider authoring your own USER-to-USER TIP one day. If you have any questions or suggestions, please send them to the USER-to-USER TIP Administrator, Lou Rocha, at his GEnie address (ST.LOU) or by regular mail care of DMC Publishing, 2800 John St., Unit 10, Markham, Ont. Canada L3R 0E2

DMC Announces Calamus for Windows NT

The suggested retail price of the Windows NT version of *Calamus* will be US $795.00 or $1,095.00 CDN. It will include all of the features that we've all learned to appreciate in *Calamus SL*, along with a few new ones.

The Windows NT version of *Calamus*, version 1.5, will begin shipping in October. All registered owners of *Calamus SL* will be entitled to a substantial discount against the purchase price. The cost to purchase *Calamus* for your Windows NT workstation is US $400.00 or $560.00 CDN. You will require Windows NT.

While development continues on *Calamus for Windows NT*, a number of features will change. As of today, here are answers to what I expect will be some of the more commonly asked questions:

DMC intends to support every platform that supports Windows NT. In the initial release, *Calamus for Windows NT*

will be available for the Intel I386/I486/Pentium and MIPS R4000 RISC based platforms. This also includes the DEC Alpha and the Olivetti M700-10 R4000 ARC and LocalBus supported motherboards. *Calamus* will utilize any graphic adapters / monitors installed and running under Windows NT in respect to resolution & colors. This also applies to hardware accelerators supported by Windows NT. Finally, DMC will be participating, along with IBM, in the worldwide launch of the IBM Power PC. We will be showing the Power PC version of *Calamus* running under Windows NT.

Calamus supports TrueType as well as CFN fonts. All those professional fonts you've gotten from us over the years are entirely compatible with the Windows NT version of *Calamus*. The latest version of *Calamus SL* and the Windows NT version of *Calamus* are compatible. There is built-in support for all Windows NT printer drivers, which includes networked printers and multiple PostScript devices.

There are new functions added into *Calamus for Windows NT* such as: OLE, DDE, Document Properties (creator, comments, security) functions, new frame scaling dialogue, PostScript support (printing & import), scanner module, TrueType support, built-in network functions, Drag & Drop and many more.

One of our major goals was to make Calamus a "true" Windows NT product and this includes support for OLE (Object Linking and Embedding). *Calamus for Windows NT* will act as an OLE client and OLE objects can be imported into the newly defined frame type called Calamus Uniframe.

DDE functions (Dynamic Data Exchange) are also a part of Windows and will, therefore, be supported in *Calamus for Windows NT*. The first implementation of DDE will be in the text formatting functions where DDE control codes can be inserted. allowing the text to be dynamically updated from other applications. This also applies if changes have been done while the *Calamus* document was not loaded. The DDE support in *Calamus* will also include NetDDE.

Calamus allows the user to import EPS files directly into a Uniframe with or without a preview option. The NT version lets the user import complex PostScript documents (.PS) directly into a frame for later output.

Calamus fully supports the built-in Clipboard functions for text and graphics. This includes sharing of clipboard contents over the network. The Windows clipboard functions will be integrated in the *Calamus* pull-down menus and correspond to the Windows standards (Cut/Copy/Paste, etc.).

DMC offers an advanced Color Blend module that allows the user to create high quality color blends by simply entering CMYK (or RGB) values. The Color Blend module handles plain blends (in different directions/angles that can be entered in 1/100 degrees) and circular blends (with different flow types). All blends can be defined as "tri-step" (CMYK1-> CMYK2-> CMYK3), e.g. from 100% magenta to 50% cyan to 100% yellow). Color blends can be 4-color separated and rasterized with high quality rasters.

Drag & Drop functions are allowed on frame basis between open documents (simply drag the frame from one document to the other). Initially, Drag & Drop will be implemented in the text editor. DMC will extend the use of Drag & Drop in the future.

When Microsoft designed Windows NT, one of their major goals was hardware independency, meaning that the Windows NT system was meant to run on a variety of platforms. This is accomplished by introducing different hardware abstraction layers (HAL) and using drivers for each type of adapter board. This means that you can connect a SCSI scanner (supported by the *Calamus* scanner module) to every SCSI adapter that is supported in Windows NT—without having to worry about drivers & software for that specific SCSI adapter.

DMC has introduced a complete new "in-house" text editor for the Windows NT version of *Calamus*. This text editor supports anchored frames, direct import or export of ASCII and CTX files, plus the possibility to view different positions in the text at the same time! The new text editor is based on pull-down menus and incorporates real time scrolling, plus advanced search/replace functionality. There will be an option for choosing between the standard Windows NT file selector and the extended *Calamus* file selector (where you can create directories, rename files, etc.). All documents created by *Calamus for Windows NT* are interchangeable between different Windows NT hardware platforms—no matter the CPU type. This is transparent whether it is an Intel I486, MIPS R4000 or DEC Alpha APX-based platform. This also applies to documents shared on the network. *Calamus for Windows NT* supports full background printing plus remote network printing—no matter the platform.

The modular concept of *Calamus* allows easy addition of new modules and filters. The following list is an overview of all modules, import and export drivers that will be included in the first *Calamus* release on all three platforms.

Modules

Clipboard, Frame, Text, Text Style, Line, Raster Area, Vector Editor, OLE 1.0 Handler. EPS (Level 1) File Handler. Raster Generator. 4 Color Separation. System Parameters. Windows Clipboard Handler. Brush. StarScreening (FM Screening). Color List Converter. Document Converter (exchange Atari <-> Windows NT). Text Editor. Mask (dynamic masking). Toolbox (frame handling). Color Blend. Scanner (color management links), no drivers included.

Import drivers

Bitmap: TIFF 6.0 (Tagged Image File Format); GIF 89a (Compuserve Graphic Interchange Format); Targa 2.0 (Truevision Targa Format); BMP (Windows 3.1 / NT Bitmap format); PCX (PC Paintbrush); IMG (GEM Image); CRD (Calamus Raster Document); MAC (MacPaint monochrome bitmaps)

Vector: CVG 1.1 (Calamus Vector Graphic); WMF (Windows Metafile Stripper, WMF -> Vector frame); CVD (Calamus Vector Document); HPGL (Hewlett Packard Graphic Language); DXF (Drawing Exchange Format)

Text: ASCII (Multi-language import + ANSI import); Write (Write for Windows 3.1 / NT formats); RTF (Rich Text Format 1.0); Word 2.0 (Word for Windows 2.0 - std. template); WP (WordPerfect 4.2, 5.0, 5.1); CTX (Calamus Text Format - 1.09N compatible); CTD (Calamus Text Document); AMI (Lotus Ami Pro 3.0)

Export drivers

Bitmap: TIFF 6.0 (LZW & CCIT compressions); CRD (Calamus Raster Document); BMP (Windows 3.1 / NT Bitmap format)

Vector: CVD (Calamus Vector Document); WMF (Enhanced Windows Metafile)

Text: Write (Write for Windows 3.1 / NT formats); RTF (Rich Text Format 1.0); ASCII (Multi-linguage import + ANSI import); CTD (Calamus Text Document)

If you require any additional information on the Windows NT version of *Calamus* (a complete specification list is available for this product) or any of our Atari line of products, contact us directly at: DMC Publishing, Inc., 2800 John Street, Unit 10, Markham, Ontario Canada L3R 0E2. Phones: (905) 479-1880; Fax: (905) 479-1882. Email: CompuServe: 76004,2246; Delphi: DMCPUBLISH; GEnie: DMCPUB-LISH; Internet: DMCPUBLISH@GENIE.GEIS.COM

Final Report—MIST 'Fest VI
by Stu Huffman

A sixth Mid-Indiana ST (MIST) AtariFest is history, with co-chairs Charlie Sears and Stu Huffman reporting at least 250 Atarians registering at Indianapolis on July 23.

"All of us in ASCII at Indianapolis, BL.A.ST at Bloomington, and PAUG at Purdue University say a hearty Hoosier thank-you to everyone who helped make it a success—especially all who took time to visit, to look, to learn and to buy!" said the show planners. "We were pleased to see so many other user groups represented with tables. It was a grand occasion for us, and we plan an even bigger event at the same place with a second room reserved for more tables with more space next year." The 1995 date for a two-room MIST AtariFest VII is Saturday, July 29.

Musical hit of this year's MIST VI was the upgraded *Edit Trak Platinum*. Rick Ladage and his wife drove from Stafford, Texas, to show the first product from the newly organized Binary Sounds company (taking over part of the line formerly handled by Barefoot Software).

Craig Harvey introduced *Edit Plus* as successor to his widely acclaimed *EdHak*, from Clear Thinking at Ann Arbor, Mich. CD-ROM activity was hot. Kent Kordes of Systems for Tomorrow at Independence, Mo., offered more of his $99 NEC SCSI CD-ROM drives plus disk packages—and lots more CD-ROM material was on the shelves of It's All Relative and DMJ from Randall and Greg Kopchak of Florissant, Mo. Helping to complete the gala day were two cases of *Current Notes* magazines, courtesy of Joe and Joyce Waters.

From Gribnif, Dan Wilga showed Beta versions of

NeoDesk 4 (which he said would be shipping next week or so), and Tom Harker was there with ICD developments for the Jaguar under the names of Black Cat Designs and 4Play. Jennifer and David Troy from Toad Computers were busy passing out a new catalog, and pleased with the day's sales—as well as pleasing Dorothy Brumleve by buying out her entire stock of "kidprg" disks!

Don and Marie Turnock of MegaType at South Bend, Ind., showed how TrueType and Type 1 fonts can be converted for *PageStream* or *Calamus*. John Trautschold brought *Flash II* for Missonware of Palatine, Ill., and S.K. Webb came from Bunker Hill, Ill., to present his latest *Seurat* package from SKWare One. Markus Szillat of MTS Creations at Chicago converted TrakBalls for ST/TT. Doug Hodson set up with equipment and software from Rising Star Computers of Dayton, Ohio, and Mars Merchandising of Lombard, Ill., had software by the crate.

Sega and Atari Announce Licensing Agreements

SUNNYVALE, Calif. (September 28, 1994) - Sega Enterprises, Ltd., and Atari Corporation (AMEX:ATC) announced today an affiliation that includes several agreements designed to serve as the basis of future working arrangements between the two video game manufacturers.

Under the terms of the agreements:

✔ Sega will receive worldwide, non-exclusive rights with certain exceptions to Atari's extensive library of patents, a number of which extend beyond the turn of the century. The agreement covers Sega, its subsidiaries, its licensees, and its customers for more than 70 U.S. patents and applications, for a fully prepaid royalty to Atari covering the remaining seven years of certain patents, amortized at approximately $7 million per year. Atari will therefore receive a total of $50 million, less Atari's contingent attorney fees and costs.

✔ Sega will purchase approximately 4.7 million shares of Atari common stock for a total price of $40 million.

✔ Both companies will enter into software license agreements for a specified number of games that would be made available on each company's present and future platforms.

✔ Atari will dismiss its legal proceedings against Sega, and each company will release all claims against the other.

The agreements are subject to approval by the United States Department of Justice and the Federal Trade Commission under Hart-Scott-Rodino and to certain other conditions.

"We are extremely pleased with this relationship that has potential long-term benefits for both companies," said David Rosen, Co-Chairman of Sega of America.

"We at Atari are very pleased with this new affiliation. The increased cash position will be used among other things to enhance our marketing position this fall," said Sam Tramiel, President, CEO of Atari Corp.

Atari Myths and Mysteries

On the Internet, No One Knows You're a Dog:
The Future of Electronic Non-Conformity

(c) 1994 David C. Troy

What I've Been Doing With My Life

Here on the ranch things have been busy; we sent out the new Toad catalogs at about the same time the articles were due for the last issue of *CN*. Sadly, I did not have enough time to even conceive of a piece, much less write it. Since *CN* is now bi-monthly, it's been a really long time since I wrote an article. There's lots to catch up on.

First off, let me say that things are going well within the Atari world. Our catalogs seem to have been well received. We're really thankful to everyone with whom we have had the pleasure of doing business. As I said in the last installment of Myths and Mysteries, I think the Atari market has reached a wonderful equilibrium, and everyone involved is enthusiastic, intelligent, and (in general) fun.

We went to a lot of shows this summer. Jennifer and I made the trek to the AtariFests in San Antonio, Indianapolis, Cleveland, and Connecticut—all between June and August. What's selling well? Lots of things . . . SCSI CD ROM drives, Gemulators, hard disks, software, *AtariWorks*, *NeoDesk 4*, *Straight FAX*, *Speedo GDOS 5*, Jaguar games, mice. There's lots to keep us busy. CD-ROM has been a particularly hot area of development. Thanks, in part, to lower CD-ROM prices (we've found some really good leads on NEC single, double, and triple speed drives), and also to fine developers like Roger Burrows (Anodyne Software–*ExtenDOS*) and Greg Kopchak (It's All Relative–*Photo Show Pro* and more), the deadly chicken-and-egg catch 22 has finally been alleviated on the Atari.

We are also beginning to sell lots of the Compton's MOST CD-ROM's, thanks to Brian Grier's fine MOST2.ZIP package (found on Genie). If you want Brian to continue development of this fine package, be sure to send in your shareware registration. It is yet another piece of the formula for making CD-ROM on the Atari work.

So, anyway, it's heartening to see that the Atari world is still going strong with new products like CD-ROM. Toad Computers and I intend to be active players in the Atari market for a long time to come.

The Future

As residents of planet Earth in the 1990's, we are forced to recognize reality: Microsoft, Intel, IBM, and Apple are the predominant players in the computer market. Many of us use more than just one computer; we use Ataris, PCs, Macs, or whatever other tools we need to get the job done. (Those of you who have been reading this column for more than a few months know that I do not believe that computer hardware is a religious subject.)

Many of us consider ourselves to be certified non-conformists, or as I like to think of it, people who willingly sacrifice compatibility and sameness for the higher cause of elegantly designed solutions. Some of us are willing to sacrifice compatibility more than others and our ideas about what constitutes an "elegantly designed solution" often vary from person to person. But by and large, we (as Atari users) are people who are not satisfied with the norm. We want something different. We want something better. How has this manifested itself? Is it changing? If it's changing, how might our desire for "better" solutions manifest itself in the future? In short, what makes us, as individualists, tick?

In The Past (1985-1992), those of us who wanted to use computers were faced with several options. In summary, they were:

Atari ST
Pro: Inexpensive, Nice GUI; Emulates PC & Mac; Built in MIDI & other ports

Con: Not as many software titles, reduced hardware compatibility

Commodore Amiga
Pro: Good sound/graphics; GUI is better than no GUI at all
Con: Fairly expensive; GUI is strange

Apple Macintosh
Pro: Super-keen user interface, good selection of well-designed software
Con: Expensive software, hardware, and accessories.

IBM PC & Compatibles
Pro: Huge selection of mediocre software and hardware; fairly inexpensive
Con: No real GUI until Windows 3.1; DOS 640K limits are a problem; hard to use.

Many folks, according to their tastes and needs, chose the Atari ST over the other options. Why? I think there are many reasons. Brand loyalty, recommendations from friends, ease of use, and attraction to specific software applications (*PageStream/Calamus*) are just a few. But, by far, the most significant reason that many people did not choose a PC compatible is the stupid, inane 640K memory limitation imposed by the 16-bit nature of MS-DOS. Conventional memory? Expanded memory managers? QEMM? Extended Memory? Who ever made this up was crazy!

The Present

In The Present (1992-1994), the world is just beginning to think about healing from the incredible decade-long 640K open sore. For the first time at the consumer level, the giants are talking about moving to "full protected mode" software. Microsoft's *Chicago* (which according to my sources will be titled *Windows95*) probably won't make it out this year and will triumphantly kill DOS. (Unfortunately, 16-bit Windows and DOS applications–most of the ones available today–will still not be able to take advantage of protected mode completely and will share the same address space, thus giving them the equal opportunity to crash each other that they have always enjoyed.) So while *Windows95* should help to ease memory management issues and be more user friendly, the devil still lurks within it. Honey, it's gonna be a long long time 'til we see an end to that icky 16-bit DOS architecture.

For those of you who are still not sure what protected mode is but are polite enough to read at least one more paragraph, let me briefly review the basics. (For those of you who know more about this than I do, skip to the next paragraph.) The Motorola 68000, a rough contemporary of the Intel 8086, is a 16-bit processor that can directly address up to 16MB of RAM (24-bit addressing). Programs can allocate as much memory as is available, in chunks as large or as small as they wish. They can access specific memory locations at will. In short, the 16MB on a 68000 is truly random access. The 68030 (introduced in the mid-eighties) takes you up to full 32-bit addressing, giving you the ability to access up to four gigabytes of RAM. This is bold. A single 32-bit longword allows you to address any specific byte in up to 4GB of space. Cool.

Enter the 8086 and memory segmentation. The processor can access any one of 16 64K memory segments, giving you access to a megabyte (16 x 65536 = 1048576 bytes) of data. But it isn't contiguous address space. To access the byte that lives at 342,708 from 0, you need to tell the processor that you want access to the 5th memory bank (this takes us up to 327680) and then that you want access to the 15028th byte. The math isn't hard here. It's easy enough to figure out how this works, more or less. But when you need to access pieces of memory that reside in different 64K segments, you're doing a lot of math and a lot of bank switching. This takes time and it puts a lot of extra stress on the system.

Microsoft is responsible for the magic 640K number. They decided that 10 segments should be enough for "conventional" memory and that the remaining six could be used by DOS, and also for a single 64K "page frame." This "page frame" is a hunk of conventional address space that can be remapped by a bank-switching expanded memory manager to give you access to more memory–thus breaking the one megabyte barrier. "Expanded memory" was the standard adopted by Lotus (and other companies) when its *1-2-3* users needed to make larger spreadsheets. Companies like AST, Boca, and Quadram all got their start by selling these crazy expanded memory cards. The cards came with a software driver, and, more often than not, the driver was specific to the card.

When the 80386 was released, it supported a nifty new feature: 32-bit contiguous addressing, just like on the 68030. In addition, its on-board memory manager (similar to the 68030's PMMU) allowed for the creation of "virtual machines," each with their own protected address space. Dave Small has gone on at great length about how cool this is and how it works on the 68030. Well, it's essentially the same deal on the 80386 (only you don't get burst mode memory access, so it ain't quite as fast). But anyway, protected mode had implications. It was the road to true multitasking. It was the solution to memory segmentation. It was a way to keep programs from step-

ping on each other's toes. In short, it was a totally new way to use what had become the most popular personal computer standard in the world. Unfortunately, this last fact is what has kept it out of use this long.

Within the last year, I have taken on several consulting jobs at a reasonable hourly fee where the main goal was to set up DOS correctly. That means using Microsoft's EMM386 or Quarterdeck's QEMM to "load programs high," thus making sure that there is sufficient free conventional memory. Even today, these programs include options for users of Expanded Memory (the stuff for the 8086/80286 that comes on cards). This is wacky! Since the first 386SX, PC users have had the ability to access all of their RAM as one chunk, contiguously, and quickly. But the sad, sad song of DOS lingers on, even into the Pentium's sorry lifetime.

Windows NT is, for the most part, a full 32-bit protected mode operating system. Only there's one small hitch: you need a 486 and at least 12Mb of RAM to run it. (Not exactly aimed at the viewers at home, if ya know what I mean.) There's so much stuff in NT (network security, 32-bit OLE, TCP/IP) that it just can't be simplified to run well on a 386 with a small amount of RAM. And it doesn't work particularly well. Just ask a network administrator about *Windows NT* and she will tell you a personal NT horror story, or relate one that happened to an acquaintance. Windows NT is not very well liked.

So, what am I getting at here? (I was hoping you'd ask...) Well, it seems to me that one of the primary reasons that we chose Atari's is that they do not suffer from 8086/80286 imposed memory segmentation limitations. It is this capability that gives the ST, the Amiga, and the Mac, most of their power. In the past, if a PC user were to say to an Atari user, "Why don't you switch to a DOS machine, there's so much more software?," the Atari user would reply, "I hate fooling with DOS–conventional memory, expanded memory..." Up until the 80386 came out, this was a perfectly reasonable thing to say. In fact, it is still a perfectly reasonable thing to say. Why did the release of the 386/486/586 change nothing, then? We've been over this–backward compatibility. So while the 386 and its children have definitely used protected mode to some benefit to make *Windows 3.1* less buggy and to make other programs (like *Gemulator*) work at all, conventional memory still exists. Therefore, anyone who uses a 386-586 with *DOS* and *Windows* is still hamstrung by a 14-year-old limitation.

Software

As computers become more and more powerful, peripherals have become standardized and modularized. Operating systems have, more and more, become divorced from specific hardware requirements. This is true across all platforms. *Gemulator* and *Spectre* prove that you don't need an Atari to run *TOS* and that you don't need a Mac to run their *System* and *Finder*. Don't forget about the upcoming Atari clones (Medusa and others are in the works). And don't forget about *PC Xformer*–now you don't need an Atari eight-bit to run eight-bit software. There are now ways to run Windows Binaries on some Unix boxes (WABI's–Windows Application Binary Interfaces). Steve Jobs stopped making hardware and started making *NeXTstep* (an OS environment) available on 486 boxes. Apple has even created a version of *System 7* that runs on 486 boxes. In fact, it has been the popular rumor that Apple, if it cannot continue to survive as a hardware company (although the release of the Power Macs has been relatively successful), may need to become a software and operating system vendor.

So what's the moral here? A given piece of fast computer hardware with standardized peripheral interfaces is more or less indistinguishable from any other piece of equally fast computer hardware with the same standardized peripheral interfaces. Atari=Intel=AMD=PowerPC=Motorola=Sun, to an extent. While these platforms are not, in reality, all running at the same speed, they approach–some better than others–being infinitely fast. (A word processor, for example, on a Sun or on an Atari 520ST could be made to appear identical, as most of the processor's time is spent waiting for user input.) When they are truly infinitely fast, they will be equal.

We all thought that we were buying hardware when we bought our first Atari ST. We thought that it was better hardware than the Amiga, Mac or PC. But we didn't really buy any special hardware at all. (It is arguable that it is possible to build a 520ST out of a 68000, 68901 MFP, two 6850 UARTs, and a pile of TTL 74LS series chips you could buy at Radio Shack.) What we were really buying was a 68000 that ran *TOS* and *GEM*–special software that made the computing experience more enjoyable by managing physical resources in a sensible, elegant, and arguably inexpensive fashion. In short and in retrospect, the software, rather than the hardware, was the unique component, and this fact has been made manifest by the fact that now it is software, rather than hardware, which seems to hold the key to creating a particular "operating environment."

Non Conformity

If we're all running essentially equivalently powered hardware, then, how can anyone claim to be a computer non-conformist? There's little room left for "alternative" hardware manufacturers, as we have seen in the demise of Commodore and the cooling of Atari's computer sensibilities. So what's left? Software and networks.

Linux

I first heard about *Linux* from my friend Phil who is an undergraduate-for-life at the University of Maryland and also an Atari owner. *Linux* is a complete Unix clone for 386/486/586 machines that was begun as freeware by 20 year-old Finnish student Linus Torvalds in 1990. Since then, programmers from all over the Internet have helped to finish, upgrade, and enhance *Linux* to the point where it is a completely viable operating system today.

The key to *Linux* is that it is, in fact, a real 32-bit operating system. It does not rely on *DOS* at all, and it uses the 386's 32-bit addressing and virtual machine capability to do what Microsoft should have done the minute the 386 hit the streets. For over a year, Phil has been using a 386DX/40 to operate a multiuser *Linux* system, which is connected directly to the Internet. That's right–he's using a 386 to operate a multitasking multiuser system. It's stable, reasonably fast, and it's a very complete implementation of Unix. For those of you who have used PC's recently, you can vouch for me when I say that a 386DX/40 is unacceptably slow when running a modern *Windows* application like *Word* or *Excel*. In fact, the predominant microprocessor for *Windows* use today is the 486DX2/66.

I installed *Linux* onto a 486DX2/66 a few weeks ago and boy was I impressed. It runs so much more quickly than *DOS* and *Windows* it really blew my socks off. And here's where things get interesting. When you think Unix, most of you think "Oh boy–grep ... text-based excitement." While *Linux* is all that and more, there is also a completely free version of *X Windows* for *Linux*. Called *Xfree86*, you can set up *X Windows* to run any one of a number of graphical environments (like *OpenLook*), and development tools like *Motif* (which is not free) also work on *Linux/Xfree86*. The first time I ran *X Windows* under *Linux* I was very impressed.

Last year I took a look at buying a Silicon Graphics "Indy," their low priced graphics workstation (about $5,000). But everything for the SGI is proprietary, even the mouse. I lived in fear of a 32MB memory upgrade. As things turned out, I never bought the Indy because I just couldn't justify its price–despite my love of the Unix operating system and graphical environment. Well, seeing *Linux*, my SGI lust has largely been quelled. It's a way for me to experiment with Unix and *X Windows* without spending five to ten thousand dollars on proprietary computer hardware.

What do I plan to do with *Linux*? Well, we're looking into getting a dedicated Internet connection here and we're considering running a World Wide Web server for the purposes of home shopping and the like. Well, *Linux* is uniquely suited for such an endeavor. For a computer to be directly networked onto the Internet, it must speak to TCP/IP (Transfer Control Protocol over Internet Protocol) networks. While there are packages for *DOS* and *Windows* that speak TCP/IP, most of these packages are suitable only as clients.

FTP, file transfer protocol, allows you to transfer files back and forth across the Internet. You may have heard of "anonymous FTP sites." These are servers on the Internet where you can login with an "anonymous" user name and download free software. *Telnet* is a terminal shell that lets you login and use remote computers as if they were local to you. *Mosaic* is a client to the World Wide Web (which itself is an organic mass of servers, files, and data all strung together with Hypertext) that lets you navigate the Web from your PC, giving you access to sound, graphics, and animation in more-or-less real time. All of these programs, as I have said, are clients to the Internet and are available under *DOS* & *Windows*. To set up a server, you really need a multitasking multiuser operating system. *Linux* is such an animal, and we'll proceed in the direction of setting up a server under *Linux* on the net.

The Challenge

While the Atari hardware and software is essentially viable in its current state, there is one frontier that remains to be conquered: TCP/IP compatibility. FTP, Telnet, and Mosaic-like clients should be developed for the Atari. This is a difficult task, but is probably not as hard as you might think. Here's why.

TCP/IP is a protocol–a way for putting data into individual sandwich bags and sending them to properly named sites across a transmission medium. It doesn't particularly matter what that medium is. A few years ago, folks (myself included) tended to get TCP/IP hopelessly muddled with the jargon of Ether-

net, 10-base-T, unshielded twisted pair. But those are just the wires... TCP/IP is the signal and the method, and as it turns out, it can be transmitted across phone lines, too.

These days you hear a lot of talk about the major online services (Genie, Delphi, Compuserve, America Online, Apple's e*world) all offering "Internet Access." They do offer regurgitated easy-to-swallow access to a limited number of the Internet's newsgroups and FTP sites, but so far, none offer TCP/IP access to a personal computer. Therefore, the major services can make all the claims they like; they still are ultimately denying access to real FTP, real Telnet, and real Mosaic/World Wide Web use. And while we Atari users can use our computers as shell terminals to access these online services, we're still missing out on the real enchilada.

Regional Internet "service providers" offer a special type of dialup access called SLIP (Single Line Internet Protocol). SLIP supports TCP/IP over a standard phone line. SLIP service is not very expensive–it can now be found for under $50 per month. If you were running a PC or *Linux*, you would simply use a SLIP client program and then run FTP, Telnet, Mosaic, etc. The same sort of thing can be done, in theory, with the Atari. Once a SLIP driver is written, FTP, Telnet, and Mosaic are not far behind. As much of the similar client programs for PC and Mac are freeware and have public domain source code, I think it's just a matter of trial and error to put these packages onto the Atari.

The Future

As online services converge into the Internet, the Internet will increasingly become the heart and soul of most folks' computer interaction. It will house the newsgroups [bulletin boards], it will house the e-mail services, and it will house information collections and shopping services through the World Wide Web. To communicate with the Internet will become increasingly important, and the more adept Atari users are at doing this, the better off we will all be. That's why SLIP support for Atari is important. By conforming to the SLIP standard, Atari users can continue to be non-conformists by continuing to use their favorite hardware in a meaningful, powerful way.

Similarly, for Atari users who want to try something different but are not content with the blatant mediocrity of *DOS* and *Windows*, a system like *Linux* offers a real, elegant, usable alternative. *Linux* can be found, for free, on the Internet at anonymous FTP sites like sunsite.unc.edu and ftp.cdrom.com. It can

also be purchased on CD-ROM from several vendors (like Prentice Hall with their *Internet CD Book* and *Walnut Creek CD-ROM*–also available through Toad Computers). *Linux* is not easy to set up and use. You have to do things like recompile the entire operating system sometimes (to add optional features) or hand edit configuration files for *X Windows*.

I think that anyone who wanted to get into using *Linux* would be very satisfied with a basic 486 system and a $40-$50 per month SLIP connection. The SLIP connection (or some kind of high speed access to Internet FTP sites) is really vital to using Linux on a regular basis, as updates are constantly released on the Net and almost all software applications (which are admittedly limited in number but fun to use) are pretty much exclusively available through the net. The nice thing about *Linux* is that it is Unix; you can compile source code intended for just about any Unix machine on *Linux* and it will run fine–even stuff for *X Windows*. The CD-ROM editions of "Slackware" Linux (a popular "release" of the system) include lots of sample apps and include ample tools to get into programming it yourself.

One of the coolest programs that I came across for *Linux* is one that actually reads the digital data from an Audio CD disc and stores it into a .WAV file. This is not the same as using a sound sampler to sample sound being played by a CD player. Rather, this is copying the digital CD audio data from the disc! Record companies beware. With a high speed network like the Internet in place, it is only a matter of time before programs like this are used to pirate entire albums with no loss in fidelity.

So Long for Now

We'll be back next month with more interesting tales. I'll let you know if I hear anything on the Atari SLIP front. I think this is an intriguing area for development with the Atari and I challenge the corps of competent programmers out there to come up with something to make this work. I think it can be done.

In the meantime, if you want to discuss SLIP, the best way is probably via e-mail:

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E-mail: Toad@genie.geis.com
   Mail: Dave Troy, 570 Ritchie Highway,
         Severna Park, MD 21146-2925
   FAX:  (410) 544-1329
  Phone: (410) 544-6943
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Image Processing on the Atari

Running Out of Ram by David Barkin

This is part two of my ongoing series about digital image processing, or as I like to refer to it, "as a darkroom on your desk." Last month, as well as reviewing the nature of digital image formats, the emphasis was on the program Das Repro by CGS. This month, the emphasis will be on the newest of the CGS products, *Das Picture*. This article will not be a formal review of the program, although it many ways it will serve the same function. I have a number of complaints about this program. I would like to give it a strong recomendation. In fact, there are things you can do with *Das Picture* that cannot be done with any other program; but the reader must judge if this is enough.

Das Picture will run on any ST/TT/Falcon computer in any screen resolution. My graphics card (the Cyrel Sunrise) will run the program in 8-bit color, but, at the moment, will not run it in 24-bit mode.
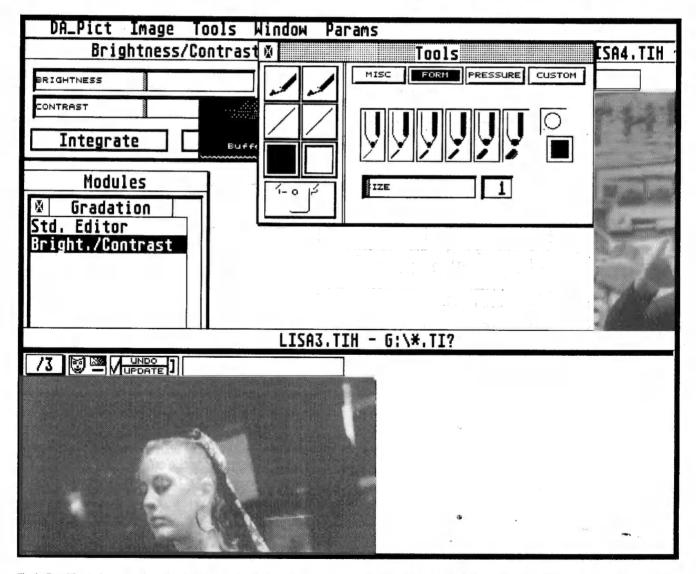
Fig 1. *Das Picture* in operation. Two images are loaded, each in a seperate window. Three other windows are open. The tool selection window, the module selection window and a window from a selected module to adjust graduation (contrast and/or brightness).

Cybercube is studying this problem and promises a fix. *Das Picture* runs fine in 8-bit mode. I found that a number of accessory programs and TSRs, such as RAM/ROMIT give *Das Picture* a hard time. Users will have to check their individual set-ups if they have a problem.

Practical Virtual Memory

The manual lists no minimum memory requirement, but I would guess that two megs of memory should be considered minimum. This would seem to leave little memory left for the manipulation of images. Such is not the case. In the past, I've run into programs that use the hard drive as virtual memory, swapping information back and forth. Certainly, these systems are useful, but nowhere near as useful as 20 or 30 megs of memory. *Das Picture* is the first program I've come across where the virtual memory management works nearly as fast as memory itself. This feature works as follows. The program, after loading in an image, forms an accurate visual display of the entire picture; but the actual image is divided into invisible tiles, some of which are in memory, some of which are on your hard drive. As you process or scroll through the image, the hard drive is accessed on the fly, so to speak, swapping information. Unlike other such systems, *only the "tile" you are working on is actually swapped*. Whether this is an accurate description of the process is academic. The plain fact is, that it works. *Das Picture* is capable of processing images much larger than the computer's actual memory. This is also possible with *Das Repro*, but, with that program, the process is so slow as to be impractical.

To make a long, boring, technical discussion short, *Das Picture* offers image processing to computer users with minimal memory configurations. This is actually quite revolutionary. Color, or even black and white .TIF files, are huge and while my Mega 4 ST, running at 8 Mhz, has enough processing power, it lacks the memory to do more then minimal work with color files. *Das Picture* changes all of that. In the real world, where I'm trying to make money with this technology, I wake up each morning to give my TT breakfast in bed and lovingly caress my 30 megs of memory. Strictly platonic, of course. Believe me, owning this computer doesn't hurt, but real work with my Mega, which I keep in another location, is now possible. All of the above is a BIG plus for *Das Picture*.

Masking - Multi-bit Masking

Another breakthrough for CGS is multi-bit masking. The mask, in a photo-manipulation program, consists of a separate image which covers parts of the ac-tual picture you are working on. If you wished to heighten the contrast of someone's face, while leaving the rest of the image untouched, you create a mask, which covers the other parts of your work. When the contrast is adjusted, only the face is affected. This masking ability, also found in *Das Repro*, is one heck of a handy gadget. The possibilities of masking are enormous; not just photo effects, but photo collage becomes simple by using this masking ability.

Das Picture takes masking to another level. It's possible, to not only make a mask that covers the image in an all or nothing fashion, but to create masks that are themselves images. These masks can range in power from the equivalent of monochrome 1–bit images (which is what *Das Repro* does) to 8-bit gray scale or color images. The protected area can, therefore, be partially unprotected in a user definable process. Using this power, you could, for example, create a watery environment, partially translucent and partially opaque, out of dry land. The possibilities are endless. Masks can even be saved as .TIF files and then used as images themselves.

Once again, this is a revolutionary development, and as far as I can determine, found on no other program on any other platform. The only exception to this rule is the program *Chagall* distributed by CGS. (*Chagall* is a powerful program, but so slow as to receive no further mention from me.) The above effect, and others, can be duplicated by programs like *Das Repro*, but with a lot more effort. Once again, this is another big plus for *Das Picture*.

The Interface

Pausing in this discussion on the powers of this program, let's examine my basic reasons for disappointment. I've been using *Das Repro* for over two years now. I found this program one of the most enjoyable and usable programs I've ever learned for the Atari. On the other hand, the mail I've received about this program has been filled with complaints about its difficulty. No doubt the programmers have gotten more mail than I. *Das Repro* incorporates an interface which is very unusual for personal computers. It has become a victim of what I fondly call the computer intimidation syndrome.

I am also subject to this syndrome. In the near future, I will be reviewing *Inshape*, the modeling program, also from CGS. This review will probably be called "Bozo the Clown Learns Modeling." My main difficulty with learning this particular program, which is clearly thought out and very logical, is the above mentioned syndrome. Image processing is more
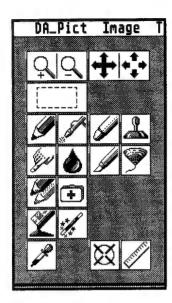
Fig. 2. Here are the various tools available in *Das Picture*. Not shown is the mouse button selector. The default is the left mouse button. Calling up the button selector allows you to assign a tool for the *right* mouse button. From left to right:
► magnifier, scroll tools,
► block tool,
► pencil, air brush, crayon, stamp,
► finger, water (the last two are anti—aliasing tools), sharpener tool, fader,
► copying pen, restorer,
► fill tool, magic wand,
► color picker, densitometer, ruler.

my line of thought. I also have a background in photography and a lust for photo-manipulation software. I jumped into *Das Repro* like a fish into water. CGS is more interested in satisfying the majority of users and selling software. *Das Picture* is the result of our feedback.

In essence, *Das Picture* has taken the Photoshop route and done away with the separate screen for working on your image and a separate screen for the tool box. Instead, it uses one screen in which windows are used for displaying and working on images as well as for the various tools and effects. There has been a big sacrifice in speed of use to achieve ease of use. By this I don't mean that the program runs slower then *Das Repro*; in some respects it does and in some respects it processes information faster. What I mean by speed of use is the ability of the user to access the working tools and effects.

In Das Repro to switch from pen to graduation control, back to pen and then alter the pen, I would do the following: Hit [Control] + [g], alter the graduation in the resulting dialogue, then hit [F1] and alter the pen in that dialogue. In *Das Picture*, I would hit [Control] + [m] to activate the modules, click on the graduation module, alter the graduation, then I would click on [Control] + [t] to access the tool box, click on one of the parameter settings to access an aspect of the pen and, finally, I would be able to resume work. Meanwhile, all these tool and module windows would be in my way. While I can freely move and position them, the whole process is annoying. Still, it takes time to get used to the power of *Das Repro*, while *with Das Picture* you can be off and running. All of the above slows down *using* the program. Most users will prefer this method, but if you're processing images for a living and are prepared to invest time in maximiz-

ing your learning, this mouse oriented interface will be a major disappointment.

The manual for *Das Picture* is a minor disappointment. The translation from the German is reasonable; except for some rather odd context errors, the real fault is in the original German. The author has made a real attempt to explain image processing in the context of *Das Picture*. He failed. The first two thirds of this 100–page manual is a discussion of the program, its features and image processing, in general. He leaps from subject to subject, constantly repeating, what is actually my copyrighted expression, "more on this later." Just as you're starting to understand what he's saying, he's off on another topic. The last third of the manual is the reference section where each option is explained, option by option. This is not a difficult program and, while the entire manual should be read, the reference section is where you're going to learn how to do it. Another fault of the manual is the lack of an index. The carefully thought out manual of *Studio Photo* by Compo also lacks an index, but Compo's manual is so well organized this was not a problem. With *Das Picture* it is. Oh, well, bear with it; the program has potential.

The Modules

Much of *Das Picture* is modular in nature. The special effects and filters, the graduation controls and quite a few other things are actually modules. They integrate seamlessly into the program and hold out the hope of future expansion. CGS tells me that quite a few modules are in development, but the program is quite powerful as it stands. One newly released module allows for the loading of Kodak CD JPEG files. Since the entire program is mouse oriented, accessing a module is no different than accessing any other part of the interface. The program even comes equipped with a Vector Module, which allows creating vector paths along which you can run the effects of your tools. In addition, this module is compatible with the program *Das Vector*, the vector program also put out by CGS.

Das Picture is also more of a paint program than other image processing software now available. Each tool has more flexible parameters than the equivalents in *Das Repro*. For someone like myself, who drew his first straight line with the aid of a computer, this flexibility is not important. *Das Repro* and other programs provide all the flexibility I'm capable of using. For people with an artistic bent, these capabilities can be important. I don't want to confuse the issue here; *Das Picture* is, by no means, a paint program. Nor should it be. It's a program for manipulating and

processing images in the same way a photographic darkroom does. Users should consider *True Paint* from Oregon Research if they wish to make full use of their artistic talents, but *Das Picture* comes close. A program like *True Paint* should be considered an adjunct for Image Processing, not a substitute.

The Color Picker and the Magic Wand

There is another area where *Das Picture* is very strong. Colors can be selected and stored in an extremely uncomplicated manner. This color picker system easily allows for access and transfer of colors from one image to another. Holding down the left shift key while clicking with the left mouse button assigns that color to your working tool. This color can then be stored in a color menu, which, in turn, is either visual and/or verbal in description. Thus, storing a blue sky can allow you quite a bit of flexibility in defining what kind of blue sky you want.

As in other high—end image processing programs, *Das Picture* has a method for defining global color changes, either for masking or acting directly on the image. The accepted manner for doing this is referred to as the magic wand. You select the color you wish to change with the magic wand. Using the resulting dialogue, you then define the *variation* of the color you wish to conduct operations on. Since a blue sky actually consists of *degrees of blue*, this is critical. My only objection to this is the use of the word magic. I dislike anything that adds to the computer intimidation syndrome. *Das Repro* uses a different method to achieve the same results. They could easily have defined it as the magic wand, but the program came out long before *Photoshop* popularized this term. This personal objection to using the word magic should be disregarded by the reader. I'm in a bad mood this morning. The dog decided to alter both the color and texture of the family couch without even turning on the computer.

Color Correction

Aside from the above criticisms of *Das Picture*, this program does allow professional image processing. One other weakness lies in the field of color correction. Color correction deserves (you guessed it) an entire article of its own. Briefly, the final output of your image is being made to be printed. Modern printing makes use of the CYMK system. Cyan, Yellow, Magenta and Black dots are printed, dithered out on the page, to fool the eye into seeing the full spectrum of color. What you see on your monitor is not what will be actually printed. Colors react differently when dithered than when displayed. With the RGB

system of display, used on both monitors and televisions, colors overlap and act as filters. Thus, the three colors of Red, Green and Blue can be combined to form the full color spectrum. But printed colors are on plain paper and, if one covers another, there is no transparency. Color correction in a computer program is designed to repair this discrepancy. *Das Repro* contains a full color correction system, as powerful as on any computer program available; *Das Picture* does not. There is a save option that allows for an automatic method of color separation, but such a method opens the door to serious errors.

Desktop publishing programs like *Calamus SL or Das Layout* allow for color separation and correction, so that all is not lost. You will probably be using such a program anyway, but you should be aware of the weakness. CGS speculates that they will develop a module to accomplish color separation if the demand justifies it, but as they say in the trade, at the moment this is vapor ware.

Selecting Tools and Windows

Perhaps you've noticed there has been very little description of the actual tools in *Das Picture*. These tools duplicate the tools in *Das Repro*. One difference between the two programs is that it is possible to select a different tool for both the right and left mouse buttons. So while the right mouse button can serve as an eraser, it can also be assigned the function of any other tool. Tool effects can be applied freely by moving the mouse. They can be applied as solid lines, with the option to make them continuous, and as dotted lines. As I've said, each tool has a wide degree of adjustments, including fading in and out, size and shape of the applied colors and quite a bit more.

As with *Das Repro*, many of the tools duplicate the global effects. A local restore tool, sharpening and blurring tools etc. Tools and effects can also be used in various modes. They can Replace, Add or Subtract
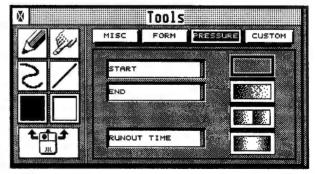
Fig. 3. Another part of the tool dialogue. This shows different tools for both mouse buttons.

Fig. 4. This collage was created in *Das Picture*. Aside from the time of scanning, the actual collage took 30 minutes to create. The same collage took 15 minutes in *Das Repro*. Photography by the author.

from the image. There are also other modes of application that have unusual effects.

Block Functions and Undo

Once again, as with *Das Repro*, copying is done through the block tool. Images or parts of images are loaded into the block buffer and are either used to create an entirely new image or are copied onto an existing picture. This tool has a variety of powerful features that, in combination with the masking tool, allow for every conceivable effect. One difference between the two Das programs is that masks cannot be directly loaded into an existing frame, as is the case with *Das Repro*. On the other hand, while both programs have a configurable undo buffer to restore changes you've made in your image (which just saved you losing an hour of work) *Das Picture* allows the mask to be loaded into an undo buffer. With *Das Repro* you save the mask and then reload it; with *Das Picture* you can store the mask in an undo buffer. If you do save a mask, it will load into its own window and you must copy it back into the window from which it was originally created.

In *Das Repro*, you switch from image to image using the numeric keyboard. You can do this either in the tool screen or from the working screen. *Das Picture* has only one screen with your images displayed in windows. You can use tools in windows that have not been selected. Simply moving the mouse over an image allows you to use your tool even though the window remains un-selected. Other functions, such as global effects, require that the window be selected, either by using a key command to scroll through your

pictures, or clicking the mouse on a window to select it. As I've said, this slows operations down compared to *Das Repro*, but the interface works.

Scrolling through a window or increasing the magnification is done in the same way as in *Das Repro*. Holding down the alternate key and left mouse button allows you to move through the image, while using the right mouse button allows continuous scrolling. Holding down alternate plus the left shift key makes each click of the left mouse button a one step increase in magnification.

Load and Save

One last note about using *Das Picture* concerns its load and save functions. Files can be loaded and saved as monochrome TIF, 8-bit TIF and full color 24-bit TIF files. In addition, the program makes use of *CGS's* own modified TIF files. To use other formats requires the supplied conversion program. There are few options in this program other than Degas and Image formats. For conversion to or from other formats you will need a program like *Gem View* or *Image Copy* or the *Bridge Module* of *Calamus*. Finally, files can be saved or printed to disk as Image files, .TIF files or can be printed out directly to your printer. A variety of printers are supported, but as I've said, ultimately final output should be from a DTP program.

Bugs and Odds and Ends

This program is fairly bug free and I've yet to be able to crash it. As mentioned, it will not run on the Cyrel Card at over 256 colors. The only real bug I've

so far found is that, when in the line or continuous line mode, the image is supposed to scroll when the line reaches the edge of the window. It will scroll going up, down and to the right, but stops dead when I hit the left side of the window. Occasionally, for no reason that I can determine, this option works correctly. Another bug is that the mask will not protect an image when using the invert option. Aside from these, everything works as billed. One item, which at first I couldn't locate in the manual, was how to globally erase the unmasked part of my image. It turns out that this option is located in the module called "color run." Selecting the "white" color run is the same as selecting erase.

Overall

This whole fascinating subject of Image processing on our computer has an unusual context. *Das Repro* has been around for a number of year *and still is the most powerful and versatile program for any machine.* Its problem, as regards the average ST user, is the requirement of MEMORY to take advantage of the program. Plus, ST owners are not able to take advantage of its color capabilities. TT and Falcon owners can now run the program directly. How I wish CGS would do an overhaul of this program to bring me the features of *Das Picture.* For once I'm going to blame the user. Too often we forget that computer software does not replace knowledge of a trade. We want our cake without cooking it. We want to get the results without work. Life isn't that simple. The odd part of this discussion is that *Das Repro* is an easier program to use than *Das Picture.* *Das Picture* is geared more to-

ward the person who is intimidated by power, who closes his mind to potential. This is what my mail tells me.

One last thought for users who are not Image Processing fanatics. There is a new program from Hi-Soft, *Truel Image,* distributed by Oregon Research. Unlike *Studio Photo,* this program does allow sophisticated collage work and does have some masking capability. I have not used this program, but only have seen it demonstrated at the Connecticut Fair. I hope to give a full report on it. There is no doubt that *Das Picture* is a *much* more powerful program, but some users may find it powerful enough.

There have been a number of new developments in programs available on our platform. High end programs are starting to mesh and their output is cross platform compatible. Next month will either be the last of my present series or a break to discuss this integration of software. I'm also anxious to discuss the Cattamaran accelerator board for the TT.

There has also been a new development in my personal life. After a long and futile resistance to change I've finally gone on-line and can be reached on GENIE. My address is D.BARKIN1.

So until next month...

AtariWorks Data Base

The Epitome of User Friendliness
by Michael 'Papa' Hebert

AtariWorks Update

Since the last installment, the cause of "Black Page Syndrome" in Version 1.207 of *AtariWorks* has been discovered. It is caused by insufficient contiguous, unfragmented RAM space in which to construct the bitmap image of the page for the printer driver that is being used. *AtariWorks* requires as little as 250k Bytes for a 9-pin driver to as much as 1.5 mBytes for a 360 dpi driver. Many thanks to Keith Gerdes of Tracetech and Mike Allen of GEnie's ST Help Desk for tracking this down.

Compo Software has released *SpeedoGDOS 5.0b*, which allows Truetype and Postscript Type 1 fonts to be used in addition to Bitstream's proprietary Speedo format. Atari users now have access to a greater variety of fonts, commercial, shareware or public domain, than users on any other platform.

And Now ...

Some of you may be unfamiliar with data base programs. Before telling you about the one in *AtariWorks*, I should define a few terms. A data base is a collection of records. These may be likened to a set of 3x5 cards or the rows on a columnar pad. Each of the records has a common set of fields containing the actual data. Fields are assigned attributes indicating the type of data they contain.

A data base may be *flatfile*, where each record is an entity unto itself, or *relational*, where data contained in one record can be linked to or operate on data contained in some other record. Flatfile data bases are generally easier to set up but less powerful than relational data bases, which are more like programming languages than anything else.

Before I scare anyone off, let me say that the *AtariWorks* data base is, without a doubt, the most user friendly general purpose flatfile data base in existence. Why? Because setting up a data base in *AtariWorks* is no more difficult than creating a recipe file on 3x5 cards or a telephone/address file on Rolodex cards. The only thing that *AtariWorks* requires you to predefine is the name of each field the record will contain. You don't have to tell *AtariWorks*

how big a field must be—it defaults to 255 characters. You do not have to specify what kind of data a field may contain—it defaults to anything you can
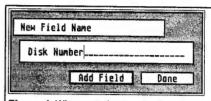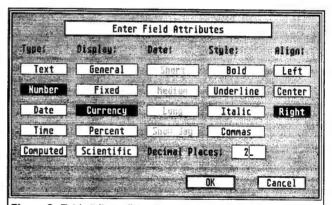
Figure 1. When creating a new data base, just enter the names for whatever fields you would like.

type in. When you do need to define data types, *AtariWorks* provides an easy to use and exceptionally powerful dialog for setting field attributes. You can have up to 9,999 fields in each record and up to 9,999 records in each data base file.

Figure 2. Field attribute dialog box allows you to specify specific attributes for text, numeric, date, time, or computed fields.

You can choose whether to present the data in a *Form* window with fields arranged as you wish or in a *List* window, which looks like a spreadsheet. The on screen size of each field may be changed by simply dragging it to the required width. You cannot size a field vertically for multiline presentation, but this is not a serious limitation. A separate typeface and point size can be selected for presentation in Form or List windows but you cannot use more than one typeface or point size in a Form or List.

Reports, the printed representation of your data, can be generated directly from the data base or from the *AtariWorks* word processor. Reports printed di-

D:\WORKS\PG_PRESS\PGG_CUST.STD (DB) (Saved)

Category [Customers]

Last Name [Allen]   First Name [Bill]

Address 1 [50 West 7th Street]

Address 2 [   ]

D:\WORKS\PG_PRESS\PGP_REG.STD (DB) (Not Saved)

CHECK NO	DATE	PAYEE	CATEGORY	AMOUNT	D
	11/26/1993	Deposit	Sales		
	11/26/1993	Deposit	Sales		
1001	11/22/1993	Cash	Draw	$50.00	
1002	11/30/1993	Office Depot	Supplies	$59.21	
1003	12/1/1993	P. Lefebvre	Equipment	$17.00	
	12/3/1993	Deposit	Sales		
1004	12/3/1993	Office Depot	Supplies	$104.15	
	12/6/1993	Deposit	Sales		

Figure 3. (Top) A customer data base with the record, one per customer, shown in the FORM format. (Bottom) A checking account data base shown in the LIST format with one record for each transaction.

rectly from the data base will always be in List format. For a more polished appearance, the data may be copied to an *AtariWorks* document where the formatting of the data, including typeface and point size, can be tailored as needed. Form letters or address labels are easily individualized by merging name and address information.

Records may be sorted alphabetically, numerically or in date order. Searches may be conducted based on a simple mask, such as finding all the addresses in a given zip code, or on a complex mask, like locating all the checks written for medical expenses between two dates.

Calculations can be performed based on the information contained in other fields within a record. Calculations cannot be performed across records, but you can select and copy a block of records to the *Atari-Works* spreadsheet where complex cross--record calculations can be done. The results of those calculations can then be copied back to the data base file.

About Uses ...

Obviously, the most common use that we all have for a database is to keep track of names, addresses and phone numbers. The *AtariWorks* data base is an ideal choice for this job. Here, at Papa's Grafik Press, I keep my customer data base in just such a file. I also use the *AtariWorks* data base for the Papa's Grafik Press check register. You can use the data base for home inventories,

recipe files, VCR and audio tape organization and labeling, itineraries and daily planner.

As a lark, I have created a couple of 'real time' multi-window data bases. One was for scheduling appointments such as might be used in a doctor's office. The other was a multi-window taxi dispatch application. It had a running log in one window, a cars in stands or cruising window, a cars enroute window and a fares waiting window. Simple cut and paste between windows was used to simulate the use of felt pens and magnetic markers on a conventional taxi dispatch board.

You can use the *AtariWorks* data base for virtually any kind of information that could be organized on individual 3x5 cards or rows on a columnar pad. The limits are your own creativity. What you cannot use the *AtariWorks* data base for are complex tasks like automatic batch processing of order entry, invoice generation and general ledger posting. That's what *Superbase* and the like are for.

Drawbacks?

Keeping in mind the inherent limits of flatfile data bases, there are only two areas where I can find fault with the *AtariWorks* data base. In medium resolution, the use of bold font attributes causes very slow screen drawing and updating on Blitter equipped Ataris. Turning the Blitter off corrects the problem but the bold attribute is no longer visible on screen although it will still be there when you print. This is obviously a system hardware related fault.

Record Selection Form

Field Name : [PAYEE] ≡

Relational Operator : [is equal to] ≡

Current Rule : [Medical Associates_____]

Installed Rules :

And Or	CATEGORY is equal to Medical
And Or	CATEGORY is greater than or equal to 1/1/94
And Or	CATEGORY is less than 8/1/94
And Or	PAYEE is equal to Medical Associates
And Or	

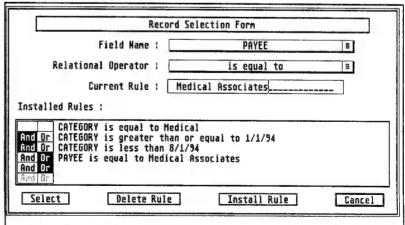[Select]   [Delete Rule]   [Install Rule]   [Cancel]

Figure 4. The Record Selection Form helps you quickly find relevant information.

by
Paul
Lefebvre

CT AtariFest

Hello, everyone. Another summer is behind us, so now there is no excuse for not using your Atari! The close of summer for me was marked by the weekend of Aug. 27/28, the weekend of the long—awaited Connecticut AtariFest. Let me tell you about it.

After driving non—stop for more than five hours, we arrived in Bridgeport at about 10:45 a.m. This year's location was the Bridgeport Holiday Inn, also the show's original location. I can't say that I was impressed with Bridgeport; it seemed dirty and depressing.

After arriving, I was asked if I had been to a CT Fest before and was relocated to the "previous attendee's" line. After spending several minutes getting my vitals (name, address, computer info, etc.) entered into a STacy (running *CardFile*), I was off!

First things first, I had to talk to Dan Wilga. I immediately searched out the Gribnif booth (which was easy because it was near the door) and took a look around. Dan was busy showing people *NeoDesk 4* (on a high—res color monitor––looked real nice), so I moved on. Later, when I had a chance to talk with him, he said that *NeoDesk* sales were good, but they had been focusing on getting all the upgrades out. *NeoDesk 4*, in color, (not medium res, but 16 color VGA) looks as pretty as *Windows*. Since I use the *Windows'* Program and File managers every day, I can also say that *NeoDesk* is far more usable.

Here's a breakdown of what I saw. I know I'm probably going to miss somebody (and I apologize), but here it is (in no particular order):

The ACT Atari Group (the people putting on the show) had a small table near the entrance with a few pieces of used software on it. Brian Gockley was busy

running back and forth doing whatever show promoters do (which seems to be a lot).

It's All Relative had lots of CD's on display and were showing pictures on a large color monitor. Unfortunately, there didn't seem to be a lot of people around their booth. Just not enough Atarians with CD—ROM drives, yet, I guess.

Oregon Research had a couple new products they were demoing: *Papyrus Gold* and *True Image*. As if we don't have enough word processors available for our computers already, another one finds its way across the pond. *Papyrus* looks darn nice, though, and seems to have nearly all the features of *Microsoft Word* (except that *Papyrus* retails for $250 instead of $495). It has a 260 page manual, requires 2MB (4 recommended). *Speedo GDOS* is included for an extra $20. It doesn't yet work with *Speedo v5*, but that is being addressed as I write.

Computer Zone, an Atari Dealer in Southern MA, had Jaguars and games, some ST software and lots of magazines (mostly overseas). They also had a table full of computer accessories.

Fouch Software was demoing *Mailing Manager ST* and a GFABASIC programmer's utility disk. See the review of *MMST* in the October, 1993 issue of *CN*.

ICD had their usual stuff: host adapters and software. They also had a prerelease Cat Box (ports for the Jaguar) and *Star Battle* cartridge. Their bargain for the show was *Personal Pascal* version 2 for only $10! I started out with *Personal Pascal* several years ago and highly recommend it to anyone wanting to learn how to program the ST.

Atari was represented with a huge Jaguar game display that was stuffed with lots of kids playing games and looking mesmerized. This was the first time I saw a Jaguar in action, and I must say that the graphics are simply amazing. I wish my computer could do it. Three Jaguars were donated by Atari to be given away (2 in contests, one as a door prize). I wish Atari would have donated some computer equipment, but that is not their focus nowadays.

The **South Shore Atari User's Group** had a wide assortment of clip art and some PD programs available. Clip art is always a favorite of show—goers and SSAUG aimed to please.

Lexicor had a Medusa on display in a mini—tower case. It looked like an IBM clone on the outside, but was definitely an Atari on the inside. It uses a "slightly modified" version of TOS 3.06. They also had their Nova graphics boards at special show prices.

Suzy B's Software, the popular PD/Shareware company, had their entire library available. This guy is amazing. He'll let you pick out the programs you want and put them on a disk for you at $6 a pop. In con-

junction with Toad, a 2-CD set containing all of the software in his library we be released soon.

East Hartford Computer Repair had a table covered with European ST magazines and software stuffed in boxes on the floor, which made it difficult to look through. They sold a lot of magazines, though.

MajicSoft was on hand with a table for *Nertz*, a card game that is played by linking multiple computers together. John Stewart was quite active demoing and selling their many products.

Micro Computer Depot shared a table with MajicSoft and had lots of software (mostly games) at bargain prices.

Fine Tooned Engineering, the 8-bit guys, had some 8-bit stuff. I saw a *SpartaDOS X* cartridge, but alas I'm not an 8-bitter anymore so I moved on to...

Best Electronics, who had more parts than I could count if I used my ST. As far as hardware gadgets go, Best had anything and everything you could possibly need to fix or enhance your Atari (8-bits, too).

Summary

Unfortunately, but not surprisingly, attendance was down this year. While I was there, I counted about 100 people inside the show area. Total attendance for both days was about 400, a far cry from the ST's heyday, but respectable considering the state of the market. According to the show's organizers, there was an unusually large number of newcomers.

Although the show was much smaller than last year (and the year before that), most people did seem to enjoy themselves and, hopefully, the vendors made some money. I can't say if there will be enough interest to keep this thing going one more year. If there is, I suggest it be closer to Maine!

Other STuff

Program of the month: This was an easy decision. *NeoDesk 4* has been eagerly awaited since March and it finally arrived on August 16th. If you're a previous owner of *NeoDesk 3*, send in your master disks and $28. It's the best money you could spend for your Atari. If don't have *NeoDesk*, get it. It is worth every dollar of its $70 price tag. If you can, go for the *NeoDesk/Geneva* bundle. At $100 it'll be cheaper than the next version of *Windows*. And more functional, too. Congratulations, Dan and crew!
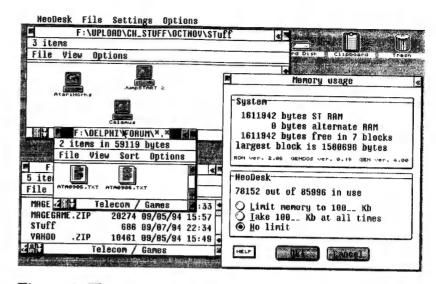
Figure 1. This is *NeoDesk 4*, shown with a program group and several windows open.

A correction: it seems that I erred back in May when I wrote that there had not been an Atari user group in Maine for about ten years. It seems there was a user group up in Jackman, Maine (which is deep in the woods) in the late eighties.

Until next time.

AtariWorks Data Base
(Continued from page 29.)

The other fault concerns copying or merging data to a document. The data base fields are stored in a tab-delimited format. The tabs marking the start and end of the data entry in a field accompany the data when it is copied, which can upset the formatting of a document when the data is embedded within a paragraph. This does not pose any significant problem when copying and can be corrected easily. Merging the same data into a form letter is a different proposition. It requires you to manually control record selection and printing rather letting it proceed automatically. The remedy for this is, obviously, not to embed field data within paragraphs.

Next Time ...

I'll take you step-by-step through the creation of an address data base including how to avoid the two common flaws that plague almost every *AtariWorks* address data base I have seen. Space permitting, I will also show you how to create and use an *AtariWorks* data base as a check register program with automatic balance calculation.

Atari in the STicks
Henry K. van Eyken

In a Country Hacker's Workshop:
Porting Data Bases With EdHak and GFA BASIC

We gotta get organized!
We gotta get organized!
— *Jonathan Winters*

Dancing chip to chip with lovely softwares that won't be forever true can easily make us lose our bitsie marbles. It's a fate to be feared and one at the root of much chaos in my manor. Not that once in blue moon I haven't tried to clean up the mess. My data base of magazine articles is a case in point.

I habitually tear them out for future reference. I don't sort them alphabetically by title or author, nor do I stuff them away by category or journal. I just staple their pages together, give them a sequential number, and put them in a filing folder. Folders for this purpose are labelled *1—50, 51—100*, and so on. Retrieving the articles is done by computer—well, *was*, really, although it still should be. With the computer just spitting out an article's number it made for a neat system, but one that soon broke down under the load of too many entries and too wide a variety. Other attempts at creating serviceable, specialty data bases for personal use have met fates not entirely dissimilar to this one. Perhaps you have suffered an experience like this.

Why do such things go awry? For various reasons, really. One part tedium, one part insufficient foresight, one part wonder about superior ways of doing things (and still within my wallet's means), and one part a wariness of advocacy by scribes who favor advertisers more than their readers. I, too, have been burnt once too often by putting my money where their pen is. But let's get back on track and mention that most essential aspect, a need for a data base's portability from one system to another.

Ah, for those good, old days of precomputate tranquility! What the deuce have we gotten ourselves into?!

The author, although not a programmer with a capital P, feels that some programming skill is an essential part of computency. For one, it allows computists to adapt existing programs to personal needs as shown in the previous issue's *Editing the Jellyfish Script*. For another, it allows one to adopt more up-to-date software as is exemplified in the present article. Moreover, he feels that portability of a suitable programming language from one platform to another (such as by GFA BASIC) and/or the use of cross-assemblers should become readily accessible to the common computist. Information explosion demands increasing reliance, also for personal use, on electronic memory. That memory must be accessible on the person and preserved throughout a lifetime throughout which rapid change is commonplace.

Sticky Stack Unstuck

I now know, I now know, you bright, experienced wizards wise in the ways of Modern, Electronically Enhanced Man! Reading on, you shall hardly be able to contain yourselves. You shall feel an urge to burst out in Falconic mantra, *"AtariWorks! AtariWorks!"* And, indeed, its data base component is a fine response to many of my concerns; it is beautiful, it is simple, it is intuitive. In fact, by the time you read this, I have happily adopted it and put much order in my affairs. Nevertheless, I don't view *AtariWorks* or any other data base system as the ultimate answer to all of my future needs. So, let's step back a little for a clearer view of this vital component of truly personal computing.

Tedium came from poor categorization of data within the base, and from super-syrupy sluggishness, as well. I used *CardSTak*, one of those little programs from yesteryear's cozy *STart* magazine.[1]

It seemed neat enough at the time. *STart* entrusted it with a data base of its own: articles they had published. I still think highly of the author's skills and creativity, just as did *STart* editors. *CardSTak* permits items to be grouped with marks: the

numbers 1 to 6 that play a role like that of paperclips in a real card file. *CardSTak* lets one have up to 500 cards in a stack. It came with its C-language source code, and, hence, increasing that number, if ever that would be needed, shouldn't be hard to do, not even for a dilettante at C. And changing that marking scheme might not be too daunting a task either.[2]

But, all and all, increasingly beset with doubts, I got mired by an unforeseen skyrocketing of the number of records and a need for subclassification. This, and avoiding the confrontation with that pesky problem of how to export a data base, made changing to some other data base system forbidding. For these, and perhaps other reasons as well, the scheme got into disuse. Articles no longer got properly filed and over a hundred came to be scattered about in a manner so hostile to perusal that I have pretty well stopped adding to the mess.

Order Out of Chaos

In the meantime, I had gotten to rely on some commercial specialty data bases, such as for home finances and for software inventory. Other matters were simply left awaiting some resolution to what escalated into a pressing, if not stifling, need for a good, comfortable system. Some programming skill might permit one to write something homemade; but, really, making a good data base system is first and foremost a matter of a well thought-out design that may well call for superhuman foresight.

Foreseeing that a data base system may sooner or later expand into a veritable knowledge-base system containing notions more symbolic than items physical or pecuniary, it must be freed from any dependence on a given program, or operating system, or central-processing unit. Data bases must be portable, without any risk of damage right across the divisions between them. That, without a shred of doubt, is criterion numero uno.

Meeting that vital criterion also solves another problem. Suppose one wishes to manipulate a data base in ways not accomodated by the system in current use. Then a computist able to do some programming may create code especially written to take care of that eventuality. He then simply imports the data into his homemade tool. To me, this eventuality includes exporting a data base, or part of it, for use by some pocket computer; we may just wish to take portions of our knowledge base with us, as we may take with us a notebook, or a booklet with numerical tables, or a phrasebook.

Speed is important, as is *the ability to consult a data base while doing other things*. A data base should not habitually monopolize one's computer's monitor; and it should become able to provide answers instantly for *automatic* use by some other program. Thus, an Atarian may naturally expect a data base program to come in the form of an accessory or else to have, on tap, other means of multitasking; by using *Geneva*, perhaps.

Once Upon a Trinity

For Atarians in the sticks (and who is not such an Atarian as support, supplies, and services are drying up?) it usually is a rather tall order to pick the right piece of software without spending megabucks—as well as waste a lot of time on comparing features. When all is said and done, it is usually reading about what someone else does that provides ideas for personal criteria. Picking other people's brains is a classic way of learning.

One person with brains worth picking is Dave Troy. Not long ago, he did a series on *dBMAN*, in which he advocated *Simple Ways to Solve Complex Problems*.[3] That struck a chord. A simpleton at heart, I dug right in. This *dBMAN*, I learned, is "more than just a clone of *dBASE III+*. It's often much faster and it also has many commands and functions that *dBASE* lacks." And "whatever you write in *dBMAN* for the ST is easily transportable to another machine." That sounds great. So, what do they charge for this wonder? $179 U.S., which translates to $240 Cdn, S&H to be added. A bit too rich for my blood even though, "the real beauty of *dbMAN* is that it is a really easy to understand, high-level programming language that is also fast and full featured. For those of you who are not computer dweebs [*dweebs*, David? O, that generation gap!], *high level* means that it is very close to English in the way it reads. For those of you who are ... *dBMAN* is very similar to BASIC, Pascal, and C. The difference is that *dbMAN* includes a vast array of data base-oriented combinations and functions—functions that would require a lot of time to write and fully debug in any other language."

I don't wish to go off half-cocked, but I am inclined to the belief that while Dave's might well be a sound argument for the sort of business computing where one is expected to be familiar with only some specialized softwares, that argument is less valid for the *compleat computist*, the person who uses a computer to assist him (her) in a wide gamut of mental work. Those people would be better off with one, all-purpose language, such as BASIC, in order to save the time needed for learning and maintaining their

knowledge of specialty languages for things bigger and better. No, let's not ask what we can do for computers; let's ask what computers can do for us! Like, for example, storing in a relational data base one's personal, powerful programming routines.

Being cost conscious, I considered using my copy of *Superbase Personal* that dates to 1987. It strikes me as pretty powerful, but (seemingly) a bit tedious by today's standards. On the other hand, it only cost me $10 or $15 at a dealer who was cleaning out all things Atari.

Like *dbMAN*, *Superbase* is a relational system.[4] And browsing through its manual, I found that a big brother, *Superbase Professional*, also comes with a programming language that is a simplified BASIC with specially designed commands. But still, there is that unpleasant prospect of comparing one's options—a tedious, time-consuming nuisance that an Atari-forsaken computist can well do without. It is, therefore, that I made my provisional decision: to shift to that beautiful, flat data base that comes with *AtariWorks*, even though I am pretty well convinced that eventually a well-developed mode of personal computing will comprise related bases.

Import/Export: What Gives?

AtariWorks lets one import and export data bases whose fields are separated by commas or by "tabs" (ASCII character 9), or in *Data Base Format*, DBF. Examples:

Comma-delimited:
    Sinatra,Frank,Myway
Tab delimited:
    Sinatra   Frank   Myway
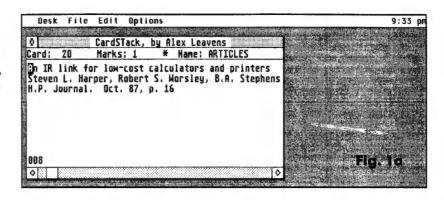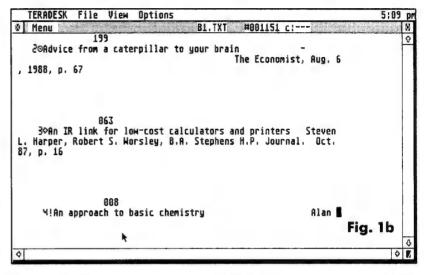DBF:
    Sinatra   Frank   Myway

What a waste of space that last choice is!

When comma-delimited, the imported file will break to another field wherever a comma occurs. Suppose a new data base has records that contain the fields *Name* and *Address*, whereas a record being imported reads, "Sinatra,Frank,Myway". The name will

Fig. 1—From *CardStak* to *AtariWorks*. (a) A *CardStak* record cannot be imported as is into *AtariWorks*. (b) *CardStak* records as seen by *EdHak* helps us design a strategy for conversion. (c) Records in *AtariWorks* with fields delimited by the symbol ⊙, which is ASCII character 9.

then be imported as Sinatra, the address as Frank, and there ain't no more Myway. Not that such is altogether without benefit, because such splitting upon import may turn lemons into lemonade. For example, a single field containing

Current Notes, Aug./Sept. 1994

may split automatically upon import to fill separate fields named *Journal* and *Date*. Undesired breaks can be avoided with quotation marks. Thus "a,b,c","d,e,f" will break into two fields.

It doesn't matter that *AtariWorks* is not quite the King of the Hill. What matters, for now, is that it is a convenient tool to get me out my data base mess, and that I don't need to worry about potential compatibil-

ity problems. Not that *AtariWorks* comes free of charge, but U.S. $110 buys much more than a data base: it also buys an opportunity to experience the pros and cons of a *Works*. So, with that decision made, on to the next step: turning my *CardSTak* data base into one suited for use by another system.

A Beginning, a Strategy, and a Happy Ending

Can a toolbox be complete without a hammer? No more, of course, than an Atari computer without *Ed-Hak*. My version of this fine editing tool is 3.0G, which, at the time of writing this, was the latest I knew of.[5]

Figure 1a shows a screenshot of a card in Card-Stak and Fig. 1b is an *EdHak's* view of its file structure. We now make it our job to modify that structure for import by *AtariWorks*, which takes lines like shown in Fig. 1c. The cards have 10 lines for 50 characters each. It isn't hard to guess that the data file is segmented in 0.5-K chunks, i.e. of 512 bytes each. Using *EdHak* to count the characters from the beginning of one title to the beginning of the next, this turns out to be correct. My data bases also contain some crud (control characters?) just before each title, so I use *EdHak* to chip the first few characters off the file so that it neatly starts with the first title.

For the actual conversion, I wrote a GFA BASIC program, which I run straight from the language's editor because there is no point in compiling it. In fact, working directly from the editor gives one more flexibility, for this kind of program needs adapting to the way the source file and the target file are organized. Here are the steps in designing and making the program. Sure, the program is specific to my personal situation; I use it here only to demonstrate an approach—and to show, once more, the benefit of acquiring some level of programming skill, the benefit of not having to rely entirely on professionally produced programs.

A. We must load the file for CardSTak into RAM:

```
pad$=CHR$(ADD(GEMDOS(25),65))+":"+DIR$(0)+"\"
FILESELECT pad$+"*.*","",n$
OPEN "I",#1,n$
length%=LOF(#1)
DIM buffer|(length%)
address%=VARPTR(buffer|(0))
BGET #1,address%,length%
CLOSE
```

Thus, we create a region in RAM beginning at some address where the file is then stored by using the BGET command. Just as an aside: to see what we have got here there try these lines:

```
PRINT "Code in decimal numbers: "
FOR try%=0 to 50
  PRINT buffer|(try%);
NEXT try%
PRINT
PRINT "Code in hexadecimal numbers: "
FOR try%=0 to 50
  PRINT HEX$(buffer|(try%));
NEXT try%
PRINT
  PRINT "And now the code for folks like us:"
FOR try%=0 to 50
  PRINT CHR$(buffer|(try%));
NEXT try%
```

This block of lines is not intended to form a part of the program, they are only for personal edification, to give us an insight in just what it is we have in that section of RAM beginning at VARPTR buffer|(0).

B. Following up on what we have seen with *Ed-Hak*, we shall work with 512-byte slices of the file. The number of slices is assigned to the variable k%:

```
k%=length%/512+1
```

C. Each slice will be transformed in a record for *AtariWorks*. In each such slice there are four distinctive parts: title, authors, source and date, and the sequence number in my manila folders. Accordingly, we shall dimension two array-variables. Then, we recover 512 characters at a time from the region of RAM, here called *buffer*, till we have just a card full of them. We'll send this card off for transformation by the procedure *transform_card*, where the number k% of new records are produced. Those, then, will be saved in a new file by the procedure *save_file*:

```
DIM xform$(4),record$(k%)
FOR i%=1 TO length%
  card$=card$+CHR$(buffer|(i%-1))
  IF i% MOD 512=0
    @transform_card
    CLR card$
  ENDIF
NEXT i%
@save_file
```

D. The procedure *transform_card* will split the cards, and the sections are sent to the procedure *cleanup* to get rid of a lot of empty spaces and other crud.

```
PROCEDURE transform_card
  FOR j%=0 TO 2

xform$(j%)=MID$(card$,50*(j%)+1+z%,5
0)
    @cleanup
  NEXT j%
  xform$(3)=MID$(card$,151+z%,360)
  @cleanup
  INC z%

record$(n%)=xform$(0)+CHR$(9)+xform$
(1)+CHR$(9)+xform$(2)+CHR$(9)+xform$
(3)
  INC n%
RETURN
ı
PROCEDURE cleanup
  DO         ! stripping junk from
the left
    EXIT IF
LEFT$(xform$(j%))>CHR$(32) AND
      LEFT$(xform$(j%))<CHR$(127) OR
xform$(j%)=""
    xform$(j%)=MID$(xform$(j%),2)
  LOOP
  DO         ! stripping junk from the right
    EXIT IF RIGHT$(xform$(j%))>CHR$(32) AND
      RIGHT$(xform$(j%))<CHR$(127) OR
xform$(j%)=""
    len%=LEN(xform$(j%))
    xform$(j%)=LEFT$(xform$(j%),len%-1)
  LOOP
RETURN
```

Not everything is cleaned up, but with the aid of *EdHak* we can touch-up things by hand later. Not to worry about that right now.

E. The records produced are collected in a new file:

```
PROCEDURE save_file
  FILESELECT pad$+"*.*","",n$
  OPEN 0,#1,n$
  FOR i%=1 TO n%
    PRINT #1,record$(i%)
  NEXT i%
  CLOSE #1
RETURN
```

So there. That's one down with only one more to go.

F. Things would already be just about perfect at this point if the way I had entered the data in *Card-*
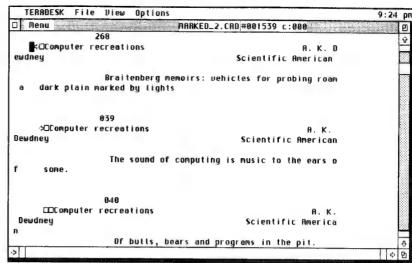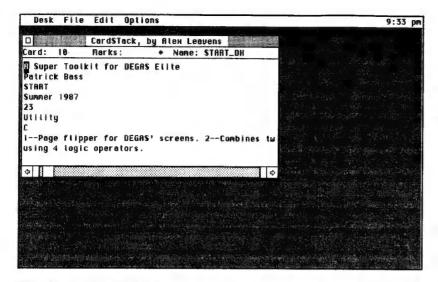
Fig. 2—We find an irregularity. But an irregularity common enough for a common approach to straighten things out. Once this file is converted to tab-delimited format, we use a late version of *EdHak* to move the column with the second parts of titles to its proper place, directly following the column with the text *Computer recreations*.

STak were in strict accord with the way the records were split, i.e. a maximum of 50 characters for the title, 50 for the authors, 50 for journal and date, and the remainder of half a kilobyte for the article's sequence number. Actually, the latter space sometimes includes textual material (such as comments or tail ends of long titles, and the like), but this, and other small deficiencies, will be touched up by hand with the use of *EdHak*. For example, some control characters within the ASCII 33-126 range can be deleted by hand, some spaces can be filled in. These little touch-ups are done in no time at all. Some other work would have been more tedious were it not for a neat feature found in late versions of *EdHak*: their capability to let one move or delete columns of text.

Figure 2 shows an instance where this feature is useful. A number of articles have a two-part title such as the name of a feature, *computer recreations* and the actual title. Because of space limitations, I had moved the actual title to the body of the card. But now we want to move these titles to their proper place. Luckily, they all start uniformly in the same column after journal and date. My version of *EdHak* lets me take that whole block and move it forward to fit right after *Computer recreations*.

Variation on the Theme

STart magazine used *CardSTak* for creating a data base of *STart* articles. Figure 3a shows a card. Examing the data base with *EdHak*, we find that each record consists of 10 fields of 50 characters each. The first four characters of the file are control charac-
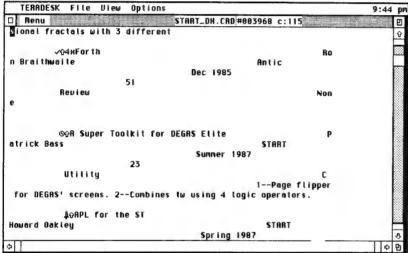
```
CardStack, by Alex Leavens
Card:  10    Marks:      + Name: START_DH
A Super Toolkit for DEGAS Elite
Patrick Bass
START
Summer 1987
23
Utility
C
1--Page flipper for DEGAS' screens. 2--Combines tw
using 4 logic operators.
```

```
Menu                          START_DH.CRD #003968 c:115
sional fractals with 3 different

        4xForth                                    Ro
n Braithwaite                       Antic
                          Dec 1985
          51
        Review                                    Non
e

        A Super Toolkit for DEGAS Elite            P
atrick Bass                        START
                          Summer 1987
          23
        Utility                                   C
                              1--Page flipper
for DEGAS' screens. 2--Combines tw using 4 logic operators.

        APL for the ST
Howard Oakley                      START
                          Spring 1987
```

Fig. 3—Again from *CardStak* to *AtariWorks*. (a) Here a somewhat differently organized record (with ten fields of 50 characters each) requires a slight modification in our approach. (b) And here again, *EdHak* helps us envision the way.

ters, which are best removed right away so that the file starts with the first title of the first card.

We can use the same program as shown before except for the procedure by which the record is broken up in fields. That procedure is replaced by

```
PROCEDURE transform_card
  FOR n%=0 TO k%-1
    FOR j%=0 TO 9
      xform$(j%)=MID$(card$,50*(j%)+1+z%,50)
      @cleanup
      record$(n%)=record$(n%)+rec$(j%)
      IF j%<>9
        record$(n%)=record$(n%)+CHR$(9)
      ENDIF
    NEXT j%
    INC z%
  NEXT n%
RETURN
```

An *EdHak* view of the first several records can be seen in Fig. 3b. This month's magazine disk includes a data base of *Current Notes* articles. Their conversion for use in your data base system is, as we teachers have a long tradition of saying, "left to the reader as an exercise."

Back Again to BASIC

The program we made is like a handtool with interchangeable parts—like an electric drill, for example. Electric drills come with a collection of different sizes of bits. Here we have a program in which we may fit different procedures that all go by the same name—by the name, *transform_card*.

Yet another assembly permits us to print selected items from a data base. For example, one might wish to import into a document produced by some editor or wordprocessor, the list of titles found in a data base. For that purpose, I would replace the second part of the program by:

```
OPEN #1,"I","D:\DATABASE.XXX"
  DO
    input #1,record$
    EXIT IF record$=""
    k%=INSTRING(record$,CHR$(9),1)

rec$(i%)=LEFT$(record$(i%),k%-1)
    INC i%
  LOOP
CLOSE #1
OPEN #1,"O","M:\TITLES.TXT"
  FOR j%=1 TO i%-1
    PRINT #1,rec$(j%)
  NEXT j%
CLOSE #1
```

Just watch the dimensioning of array variables.

In Conclusion

The principal theme explored here was introduced a few months ago in my article, "The Little Engine That Could've"?[6] With a ready-to-modify program, it takes only knowledge of a few simple commands to let ordinary BASIC do a variety of jobs. We should well be able to create a style of working that is comfortable for those who wish to fashion programs for doing their

own specific bidding, without a need for a professional's acute knowledge of all sorts of programming esoterics. Programming becomes akin to ordinary writing, not the writing of authors of note.

Of course, as with ordinary writing, practice builds skill. Some people have learned to write more effectively than others, but pretty well all of us can create a written message sufficiently clear to get it across. It will be the same with programming, and that should permit programming to become part and parcel of ordinary, everyday life in a computate society.

And as to those proprietory programming languages, do we really need them? I suspect that, in the long run, they will be more a hinder than a help because they divert attention from objectives to means. The ordinary *compleat computist* of the future will be more interested in results than in the means for producing them.

Pulex vobiscum

NOTES & REFERENCES

1. Alex Leavens, "Stack It: CardSTak, STart's free-form data base." *STart*, Special Issue #3, 1988, p.63. Note: The same issue also provides a tabulated comparison of nine data bases, among which some that are household names even today.

2. For such editing in BASIC see my previous column, "Editing the Jellyfish Script." *Current Notes*, Aug/Sep 1994.

3. Dave Troy, "Atari Myths and Mysteries." *Current Notes*, June, July, and Sept. 1993.

4. The term *relational* is explained in the second installment of Ref. 3 (see p.56).

5. Just learned that the name has been changed to *Edit*Plus*.

6. v.E., "The Little Engine That Could've." *Current Notes*, April 1994, p.51: *Command List For Tandy PC-4*

8 Bit Tidbits
ATARI 800XL
by Rick Reaser

The New Computer User Paradigm

Things sure have changed since I bought my computer over ten years ago. Back then, people bought computers to learn about computers. The emphasis then was on learning how a computer works and how to program it–usually in BASIC. Every Atari computer came with BASIC and a book to teach you how to use it. I'm sure many of you remember the classes that local computer clubs held to these ends. Learning all that stuff was hard work as I recall. Home computer owners back then were true pioneers. They helped figure out what computers were all about. How the home computer fit into society and how society fit into the computer age.

Today, it's a different story. It's possible to spend a few thousand on a computer and not even get a programming language in the process. It's no longer necessary to know how to program a computer, much less know how it works. Computers are almost as easy to use as toasters.

Computer technology has matured to commonplace. It's a shame that everyone won't share the wonderment, understanding and insight that the home computer pioneers did, but it's all very natural. The first automobile owners had to be good auto mechanics. The first radio owners had to be good electronics engineers. Now anyone can drive a car or tune a radio or operate a computer.

In every case, the end user has been isolated from the intricasies of the technology to make things a little simpler. It's a bit sad, but everyone knew the time would come when the home computer would work for us, rather than we work for it.

Elsewhere in this Issue

This month, our *TextPRO* guru, Frank Walters, shows us how to use *TextPRO 5.20* as an offline messaging system. *Current Notes* has reviewed two other 8-bit offline messaging systems in the past. They were *QWK Silver* by Bobby Clark in the Feb '93 issue

and Pab Sungenis' *PabQWK* in the Mar '93. Since that time, a major upgrade to *PabQWK* is on the street and there is new program called *QWK8* now available for low-end hardware systems. Those familiar with Frank's musings on FidoNet already know that he thinks *TextPRO* is the best offline reader around. Now you will learn the secret why first hand.

Michael Bennett, our South Carolina High School teacher, rejoins us this month with a review of the recently re-released program from the United Kingdom called *Swift Spreadsheet*. Michael is another FidoNet regular.

We have a new contributor this month in the form of Bill Kendrick. Bill is a sophomore in the Computer System Curriculum and Sonoma State University in Northern California. (Northern California is a different state from Southern California.) Bill is a frequent participant in the usenet comp-sys-atari8 newsgroup, so many of you may already be familiar with him. Bill has been an Atari 8-bitter since, well, basically from birth. I hope you enjoy Bill's informative discussion of 8-bit digital sounds.
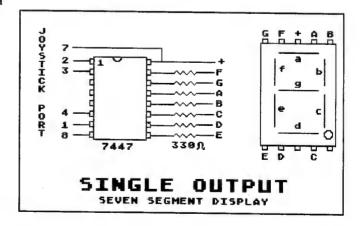
Be sure to check the front of the magazine for the latest Atari 8-bit product announcements and industry news.
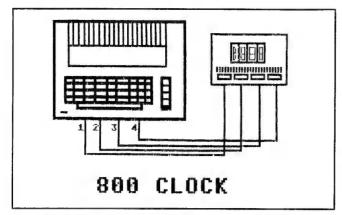
Ooops!! The Case of the Missing Figures

By accident, we left out two figures in Kevin Packard's 8-bit digital clock article last issue: the schematic and the connection of the clock to the joystick ports. We're printing them here so you can complete the project. Hopefully, you've turned off your soldering iron in the meantime.

More Hardware Project Information

Kevin Packard's seven segment LED article rekindled the banter on how to hook assorted hardware to

SINGLE OUTPUT
SEVEN SEGMENT DISPLAY

800 CLOCK

your Atari Classic. Diana Todd recently posted a list of articles on CompuServe that she has used to get the information to hook up things to joystick ports. She's used the information to build circuits that turn on a relay when pushing both joystick buttons. (Hitting only one joystick button activates a piezo buzzer, which, in turn, lights a small DC lamp, which activates a photocell operated laugh module.) Diana has also done the seven segment LED trick as well. Here is the poop:

Analog June 1986. Bits & Pieces article on joysticks to breadboard setup with a short tutorial on electronics in general.

Analog July 1986. Bits & Pieces article with many examples of how to control devices via the joystick ports. Includes info on using relays, LEDs and more. This article I found to be the most useful of all. Specifies the current limits per port and i/o line.

Analog November 1986. Bits & Pieces article talks about making a light pen.

Analog January 1987. Bits & Pieces article about constructing a rodent, which is a modified Radio Shack joystick (the four switch type).

Antic December 1986 has a neat project and article on a Stepper Motor Robot-Controller.

Intel Outside Demo Tips

One of the hotter programs around is the *Intel Outside Demo* from Europe. It's available on CompuServe in Library 4 as INTELA.ARC and INELB.ARC. It's on GEnie as file #7124 and #7125 respectively. INTELA is an ARCed DCM file and must be expanded on an enhanced density disk. INTELB needs to be expanded onto a double density disk. On INTEL A, you need to look at the directory with DOS and binary load AUTOEXEC.BAT to get to the spin-

ning polygon portion of the demo. Anyway, this demo is one of the neatest things I've seen in quite awhile. Get it!

Toad Catalog

Dave and Jennifer Troy have published Version 3.42 of their Product Catalog. It is a fine piece of work and even includes 600 8-bit items on page 41. Toad has both new and used 8-bit items available. Toad gets a lot of their used Atari Classic stock by taking it as partial trade for ST systems or just buying complete systems outright. While they are often saturated and must limit their buying, they would appreciate you giving them a call if you are unable to find a new home for your 8-bit. Also, if you buy five $5 disk-based games, you get a sixth for free! So check out Toad.

FAMPY Secrets

In his article on digitized sound, Bill Kendrick discusses a program called FAMPY. Some of you may find FAMPY a bit finicky. FAMPY is a European program designed to run on PAL machines. The US uses NTSC. It is rumored that the FAMPY finickiness is due to some incompatability between the program and NTSC. Here's the secret to get it to run.

1. Boot without BASIC
2. Push and hold the [START] key after the program has loaded for a while, but before the title screen appears.

Here's what happens. When the program is done loading, the title screen appears, but since you're holding [START], it'll fly by really quickly and not lock up the computer. Don't hold [START] *as* you boot otherwise your Atari Classic will want a to load a cassette and the familiar ERRT! will be heard. After-practicing awhile, you will get used to the amount of time loading takes before the title is about to appear so you can hold [START] starting at the right time.

PC Xformer 3.0 Update

With any luck, *PC Xformer 3.0* will be on the street by the time you read this. It turns out that one of this month's *CN* authors, Bill Kendrick, is writing the docs for the program. *PCX* programmer/owner, Darek Mihocka, spied the Bill Kendrick's Frequently Asked Questions (FAQ) for 2.0 on the Internet and hired him to write the official manual for version 3.0. Bill's PCX 2.0 FAQ is a masterpiece and I highly recommend it if you are having fits with 2.0. Bill's targetting the 3.0 manual towards people who are not fa-

miliar with PCs or Atari Classics. All the bases are covered!! When I spoke to Bill, the 3.0 docs had like 13 appendicies, not including the 16-page glossary. There are over 200 entries.

At Bob Puff's urging, Darek has added emulation of the 256K memory expansion, so it's not just a 130XE emulator, it emulates a 320XE. After Darek releases *PC Xformer 3.0*, he's going to release an update free version of *PC Xformer 2.0* (most likely called *PC Xformer 2.5*) that fixes bugs from 2.0 and adds 800XL emulation.

It looks as if *PCX 3.0* promises to be a super product in the capability and manual department. Check out the advertisement for BRASOFT (Darek Mihocka's company) elsewhere in the magazine and contact him direct for further info.

Fido Net

The 8-bit Echo on FidoNet is really expanding. There still are only about 15 posts per day, but a lot more BBSes are participating. One of the BBSes I listed in the August/September issue of *CN* is no longer participating. The Gameing BBS! in Jonesboro AR isn't on the feed anymore, but it was recently replaced by another local board. See the table for a list of all the new participants since last month's table.

Full Internet Access

A growing market appears to be the "Full Internet" access service. Full Internet Access is no longer only the domain of the college student, government worker or big company employee. Full access usually involves the ability to remotely download files to your

New Atari 8–bit Echo FidoNet Bulletin Board Systems

Phone	Location	Node #	BBS Name	SysOp	Baud
(201) 692–7981	New Milford NJ	1:2604/311	The Gearbox BBS	Mark Paris	9600
(210) 333–5360	San Antonio TX	1:387/307	Quantum Leap	Mike Mazzola	9600
(214) 442–0388	Wylie TX	1:124/7028	Wylie Connection	Wes Newell	9600
(216) 253–9247	Akron OH	1:2215/110	Akron Connection	Terry Russell	9600
(302) 239–7242	Hockessin DE	1:150/120	Inner World BBS	Brian Funk	9600
(305) 378–2571	Miami FL	1:135/94	Metro Data Group	Sebastian	9600
(305) 472–7715	Ft Lauderdale FL	1:369/120	Bashful Pervert BBS	Bob Patten	9600
(315) 797–3054	Utica NY	1:2609/507	W.A.A. BBS	Richard Seeley	9600
(317) 356–5519	Indianapolis IN	1:231/370	The Zoo	Bill Jones	9600
(317) 878–4069	Trafalgar IN	1:231/310	Crossroads Broadcast	Charlie Sears	9600
(403) 299–9925	Calgary AB	1:134/10	Logical Solutions	Hans Hoogstraat	9600
(407) 568–8774	Bithlo FL	1:363/153	MoonRose HQ	Kevin Hoffman	9600
(417) 781–0178	Joplin MO	1:286/1701	Deep Space 417	Ray Brown	9600
(501) 932–6961	Jonesboro AR	1:389/2	The Wizard's Domain	Jon Wagner	9600
(502) 933–4725	Valley Station KY	1:2320/110	LiveWire Adv Comm	Allen Prunty	9600
(504) 362–1636	New Orleans LA	1:396/80	Assassin's Lair	Todd Jordan	9600
(512) 443–3096	Austin TX	1:382/98	Austin Connect! BBS	Chris Nunn	9600
(514) 466–9637	Greenfield Prk Qc	1:167/565	Evening Shade	Chris Ross	9600
(516) 579–2069	Seaford NY	1:2619/119	The Arena BBS	Mark Ciochetto	9600
(602) 459–0013	Sierra Vista AZ	1:309/51	United We Stand America	Bill Starr	9600
(604) 272–5888	Richmond BC	1:153/813	T.R.A.C.E BBS	Terry Schreiber	9600
(703) 642–3616	Alexandria VA	1:109/618	Infinite Data Source	John Choi	9600
(706) 868–9726	Martinez GA	1:360/17	The Far Side BBS	Jim Noblett	9600
(713) 461–1682	Houston TX	1:106/6969	STarship	Rich Tietjens	9600
(718) 817–5500	Bronx NY	1:278/103	Fordham Jesuit BBS	Fr. N. Lombardi	9600
(805) 734–4742	Vandenberg AFB CA	1:206/2703	FIDOdoor Support BBS	Bryan Hall	9600
(813) 969–1089	Tampa Fl	1:377/50	The GIFfer	Earl Bonser	9600
(816) 763–3353	Kansas City MO	1:280/66	Synergy	John Hutton	9600
(818) 763–9006	N. Hollywood CA	1:102/836	Computer One	Ed Baker	9600
(904) 268–9203	Jacksonville FL	1:112/57	The Dragon's Domain	B. Himmelstoss	9600
(905) 683–3089	Ajax ON	1:229/125	PC Online	Don Liscombe	9600
(909) 989–7745	Guasti CA	1:218/405	Star Tours II	Ron Pothier	9600
64–3–389–0898	Christchurch	3:770/140	Mirth Control [#1]	Daniel Ayers	9600

computer (File Transfer Protocol or FTP) and search the network for files, as well. In a local free computer rag, I found 11 services that would connect you to the Internet for from $14 to $17 per month. Some are just e-mail while others offer FTP. Interestingly, four of the services were "adult oriented." It looks as if the "Information SuperHighway" is starting to become a toll road. Did you expect anything less?

Getting Files Off the Internet

Part of publishing this month's article on Digitized Music involved getting some files from atari.archive.umich.edu. I don't have a handy way of doing that directly and getting the resultant download to my Atari Classic. Fortunately, GEnie provides a slick way to do the job. The way to request files is through the Internet RT, on page1405. Once you get to Page 1405, you basically follow the menus. The entry on the main Roundtable menu you'd be interested in is:

11. Request a file from the Internet

If you know the host (site) and the location (directory path) of the file you want, use selection 11. Only ask for one file per request. It takes about five days for processing. They will notify you via e-mail when the file is available for download and what the file number is. You then go to the Internet Roundtable and D/L the file from the library (option 3).

You can also request a directory listing or listings or even search the Internet for a file. It's all pretty simplified and the SysOps are very helpful. I had great success. If you want to get Atari 8-bit files from the Internet and don't have File Transfer Protocol (FTP) capability on the Internet, you're in luck if you're on GEnie.

Ordering the Complete and Essential Map

Another adventure from this past month is my attempt to order "The Compleat Map" from the Tyne and Wear Atari User Group in the UK. The issue is how to mail foreign currency. This is becoming more and more a common issue for 8-bitters, with the advent of more and more foreign software. I discovered three ways to send money to foreign countries.

First is the International Money Order (IMOs) and its variants. These cost $15 on top of whatever value you purchase in the foreign currency. IMOs are available from most big banks. Credit Unions and Savings and Loans have a similar instrument, but call it by different names and they are still $15.

Second is the International Postal Money Order (IMPO). These are strange beasts and cost $7. You go to a post office and pay the money and then they send a voucher to St Louis. The post office in St Louis mails the final IMPO directly to the place you designate in the foreign country. You don't get to figure out how much of the other currency you are sending, since they don't don't figure the exchange rate until your voucher gets to St Louis. It's a very odd process.

Third is a travelers check. This is what I ended up doing. You can get travelers checks in foreign denominations from some banks. The only catch is that once you sign them in both places, they are essentially like cash. This option proved to be the cheapest, since they are basically sold at the nominal exchange rate. I'll let you know next issue what happens.

The best option is if the foreign vendor accepts a credit card. That is really clean. Another option I've looked at is going to the airport, doing the exchange for the actual foreign currency and mailing that. That is one step worse than mailing the traveler's check.

That's all for now. You can contact me via the snail mail or via the e-mail addresses at the front of the magazine.

Digital 8–Bits:

Not Just Parrot Any More

by Bill Kendrick

Digital sound on the Atari had its roots in the Parrot sampling system from AlphaSystems back in the early 1980's. Lately, however, a mini-revolution is taking place. A few years ago, Dean Garraghty popped up on the Internet with his *DigiStudio* music software and a plethora of digital demos and articles. Then came Torsten Karwoth's game, *MegaBlast*, which didn't just play digital sound, it didn't even just play digital sound while the screen was on (like a lot of other games), but it played full-out digital samples while a LOT of game action was occurring! *That* was impressive! But now we're poking our 8-bit owning tentacles into the realms of the multi-platform standards. Just as *AT8GIF, APACView, ColrView, JView* and many other utilities have let us go beyond simple home-made artwork and ComputerEyes- generated captures on the Atari, and into the world of GIFs and other standard graphics formats, many new programs are letting our 8-bits get use out of the standard sound formats.

What's Out There?

These days there are at least three multi-channel digital music players out, including: *MODPlay 1.22* by "The Gatekeeper," also known as Ivo Van Poorten, *Fampy* by "Friday," and the amazing *Sound Tracker 3.0* by "PECUS." These three programs deal with MOD music files, which were originally designed on and for the Amiga computers back in the mid 1980's. The MOD format has come a long way, but just as there are still GIFs out there in the mass of JPGs, there are still MODs to be found amongst the newer mutated MOD format files, such as ScreamTracker files.

I'll attempt to review these three programs before getting on to the next subject. "MD8"s, what *Fampy* and *Sound Tracker* play, are converted from MODs, but, as of this date, I have no idea where to get a conversion program! It seems nobody else I've contacted does yet, either! Fortunately for me, *MODPlay 1.22* does load most MODs that are 96k or less. This size restriction is due to the fact that the author has a 64k Atari, and cannot make an upgraded version until he gets more memory! ‹grin› Why is the size 96k instead of 48k or 64k? Well, most modern sound files are made up 8-bit resolution sound data. The Atari, however, has but a 4-bit digital audio playback resolution, but that's still pretty nice for 1979 technology! When the MODs are loaded into memory in *MODPlay*, the data is converted from 8-bit to 4-bit, thus chopping the size required for MODs by approximately one half.

Program	Playback Rate	Files Used	Personal Rating
MODPlay	5.25khz	MODs	Good
Fampy	???????	MD8s	Good
Sound Tracker	8.25khz	MD8s	Excellent

When I first started this article, I wasn't able to run *Fampy*, but I've found the secret to get it to work on NTSC (American) Atari's. Also, at least two demos have been made out of the program. One is a stand-alone EXEcutable called *STARWORX.EXE.* Another is the first demo on disk 2 of the Halle 1993 demo.

Pros and Cons

MODPlay: Uses its own small DOS package. The maximum disk size limit is unknown. The MODs so far must be 96k or less. I'm not sure that it can access hard drives. It cannot access RAMdisks. Some MODs are incompatible and I get the report: "This is not a MOD file." Some MODs end up going crazy towards the end or after looping once or twice. Also, when you load a MOD, it plays right away. If you stop the playback, you have to reload it to hear it again!

Fampy: The demos of it are pretty impressive and small, and it keeps the screen on during play. Unfortunately, it doesn't play the MD8s that come with *Sound Tracker*. At least on my NTSC machine, if the title appears, you're stuck. What you must do to skip the title screen is hold [START] as the program loads. When the title appears, it leaves before it can do its damage. It has a nice file-selection interface and is controlled with [START], [SELECT], [OPTION], and [SHIFT]. You can load a file, change the playback speed (which does NOT change the pitch!), play the file, stop playing, and start over.

Sound Tracker: It comes on a double-density Disk-Comm disk image as side B of "The Intel Outside Demo" from Our5oft. I got another copy from Hard Software of Hungary as an enhanced density Disk-Comm image. The Hungary version seems to only accept enhanced or single density disks. This program also lets you chose the MD8, load it, _then_ press [SPACE] when you're ready to play. Stopped the playback? Press [SPACE] to start it up again! Guess what though, I was unable to play _Fampy's_ MD8's with this but it could just be that strange Enhanced- or Single-Density disk problem.

The real beauty of these programs is the fact that they pump 4 channels of sound out through the one digital channel we have available! Not only is the computer forcing the bits to the POKEY chip in your Atari, but the 6502 CPU is churning away calculating averages so we don't have to settle with hearing only the drums, or only the guitars. Instead, we get to hear it all!

Non-Music Sound Files

We've all heard of WAVs, haven't we? No? Well, these are sampled sound files for IBM PC's and MS-Windows. Most of them seem to be 8-bit sound files and are often sampled at 11 kHz. So what can we use to listen to them? (Oh boy, I get to talk about my own software soon!) Well, there is a set of sound programs under the name _ASSS: Atari Sampled Sound System_. They claim to convert WAVs and VOCs and the like and play them back. Unfortunately, they didn't often work correctly. They also use their own Atari sound format. After having used _Parrot_ for so long, I've found that it seems to be the most accepted and also a very versatile format. So I came along and wrote a simple program in TurboBASIC XL that converts 8-bit sound files into 4-bit Parrot files, called _Convert 4-8_.

That way you can load in the old LOADPLAY.LST BASIC listing, which comes with Parrot, and then play back these sampled sounds. I went beyond that, however. I did a small hack-job to LOADPLAY.LST and came up with NLODPLAY.LST (New Load Play, for TurboBASIC XL). Instead of being a non-foolproof set of BASIC routines that you GOSUB to, I turned it into a more-or-less foolproof set of TurboBASIC XL routines that you EXEC to. Then I added a little bit of code, which was little more than an INPUT and a few EXECs, and called it _DIGIPLAY for TurboBASIC XL_. Man, I hate that program! ‹grin› I eventually went on to add a menu-based interface, which displays the Parrot (".DIG") files available and lets you chose and load one. Then, it was preprogrammed with three

playback rates. I found that a certain speed works well with most WAVs, most Mac sounds (especially those made with the Sound Control Panel recorder) playback properly at another rate, and then there's the good old SLOW playback rate of real Parrot files.

Instant success! This new program, _DigiPlay Menu_, has gotten a few raves here and there, and it got me _this_ job of writing this article! Ah, success. _But_, I'm not done yet! Much work is required of me in the future. I've planned a compiled version, which doesn't requires TurboBASIC XL or even an XL or XE series. This will not only speed up the conversion process of _Convert 4-8_, but will also allow Atari 400 and 800 users to use the programs.

How Convert 4-8 Works

For people interested in the technical details of converting 8-bit data into 4-bit data, which is all _Convert 4/8_ does, please read on! Here are the steps _Convert 4/8_ goes through:

1) Prompts the user for an input file name (as well as allowing you one to look at a disk directory).

2) Prompts the user for an output file name (again with the directory feature)

3) Asks if disk swapping will occur (for those with a single drive setup and not enough room for both files on the same disk)

Here comes the important stuff.

4) Loads in as much of the input file as it has room for.

5) Writes out the Parrot file header to the output file (skipping the file size since, at the moment, we don't know it.

6) Starts dumping the sound data to the output file. It takes two bytes from the loaded input file and puts them together into one byte, which goes to the output file. (See next section for details. Note that _Convert 4/8_ doesn't even see if the file is a sound file or anything like that. Why? Because I don't yet know anything about WAVs and the other raw sound file formats (except, of course, Parrot!))

7) Finally, if it's all done, it goes back and writes out the size that the output file ended up being into the Parrot file header. If it's not done, it loads more data, writes more data, and so on.

A digital sound player like the Parrot player code takes one byte and uses the 'high nybble' as the first piece of information, and the 'low nybble' as the next. Then, the next piece comes from the 'high nybble' of the next byte, and so on. When it comes to 8-bit sound, you can think of the 'highest' bit as being the most important piece of data. The next one is less significant, and finally the last ('lowest') bit is the least important, or the 'fine' resolution of the sound. So all Convert 4/8 does is take the 'high nybbles' of every byte in the file. The first byte, being the first piece of data, is stored as the 'high nybble' in the outgoing byte. The next byte is stored as the 'low nybble' in the outgoing byte, and that byte is sent. The next byte is again the 'high nybble' in the next outgoing byte. As you can see, by chopping off the 'low nybbles' in every byte and sticking two 'high nybbles' together into one byte, you cut the size of the output file in half!

Here's a simple diagram:

Input File	Output File
Byte #1: 10101101	Byte #1: 1010 1110
Byte #2: 11101010	
Byte #3: 00110101	Byte #2: 0011 1011
Byte #4: 10111011	

Byte 1 and 2 from the input file are two pieces of information, as are the two nybbles stored in byte one of the output file!

More can be done to reduce the size of the resulting output files by actually skipping some bytes (or averaging might do better) and then playing the sound at a slower rate. (In other words, if you played a real Parrot sound that takes 10 seconds at speed 54, and it lasts only 2 seconds at speed 11 (for example), then you can also go backwards. A file that takes 10 seconds at speed 11 can be squashed into 2 seconds at speed 11 by removing a lot of the data, and then played at speed 54 and it will take the correct amount of time again. This, of course, loses a lot of quality, but might be a wonderful space saver!)

Conclusion

So, fret no longer about not being able to hear the nifty Beavis and Butt-Head sounds, or Hal 9000 saying, "I'm sorry, Dave," or the great collection of Monty Python sounds out there, because we are no longer deaf Atari 8-bitters!

MODPlay can be found on the Internet at atari.archive.umich.edu under the following full path: atari/8bit\sound\modpl122.dcm.

On GEnie in the 8-bit RoundTable Library it's file 6575.

On CompuServe it's in Library 4 as MOD122.DCM.

Fampy can be found on the Internet at atari.archive.umich.edu under the following full path: atari/8bit\sound\fampy23a.arc and atari/8bit\sound\fampy23b.arc. That second file contains a bunch of MD8 files for you to play on fampy.

On GEnie in the 8-bit RoundTable Library it's files 7140 and 7141.

On CompuServe it's in Library 4 as FMP23A.ARC and FMP23B.ARC.

Sound Tracker can be found on GEnie in the 8-bit RoundTable Library as file 7125.

On CompuServe it's in Library 4 as INTELB.ARC.

Where can you access this mass of sound files? Well, there's always local Bulletin Board Systems, Internet's "alt.binaries.sounds" Usenet newsgroups, Internet FTP sites, and, of course, if you have a PC or Mac capable of recording sound, it often sounds much better than trying to do it with a rare Parrot or Replay (another Atari 8-bit sound recording system) setup.

If you'd like details on the standard Parrot file format, please check out a file recently distributed by the creator of *Parrot*, Tony Ramos. If you're interested in *MODPlay, Sound Tracker, Fampy*, or sound demos, look for them on on-line services and Atari 8-bit support BBSes or at Public Domain distributors.

Convert 4/8 and *DigiPlay Menu*, as well as some (Parrot-sampled) digital sound demos for TurboBASIC XL that I made are also available on-line.

Happy Downloading!!

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Swift Spreadsheet

Unique Features May Not Offset Other Limitations

Review by Michael Bennett

For the second time, the British are attempting to export their own version of the "best" Atari 8-bit spreadsheet program to the United States. The first time was with Antic Publishing as the United States distributor. The program was then called *Calc Magic* and was produced by a company called Metamorphosis Development Limited. This time the Atari Classic Programmer's Club (ACPC) in Wales is distributing it under the program's original name: *The Swift Spreadsheet*. The program has a copyright of 1985 and there is no evidence that it has been upgraded or improved in recent years.

Swift is offered on a 5 1/4" floppy that will load from any Atari disk drive and run on an XL/XE of at least 64k. Originally, it was produced in a "flippy" format with the Commodore version on one of the sides. The copy I reviewed was an Atari-only disk. There is a choice of manuals with the program package: either the original Commodore manual with vague references to the Atari version, or a newer 40-page Atari-specific manual. The Atari manual is more expensive, but well worth the difference in cost.

Capabilities

The distributor of *Swift* claims that it has a minimal amount of copy protection, but I was able to duplicate the disk using Atari DOS 2.5 with no problem. It can be installed on a hard drive with little problem using a sector copier.

One of the nice features of *Swift* is that it is able to sense certain memory upgrades and load either a standard 64k version or a 128k version. The standard program allows for over 22k of actual spreadsheet space and the larger version

has room for over 88k. I was able to get the larger version to load on a stock 130XE, but not on an XE that had been upgraded to 320k. It was unclear if the larger version would load on any other type of memory upgrade besides the stock 130XE.

One aspect of programs that is important to me is boot time. Hard drive users may not think too much of this, but for those of us who depend on floppy drives, it is a very important feature. *Swift* took one minute and two seconds to boot from a U.S. Doubled 1050 drive. In comparison, *SynCalc+* took 54 seconds, *SynCalc* and Analog's *BCalc* took 23 seconds, and Compute's *SpeedCalc* took 17 seconds to boot. With more features comes a longer load time, and *Swift* definitely comes in last in the load time category.

Swift offers the traditional row and column cell blocks that other spreadsheet programs have. A small command area at the top of the screen indicates cell contents, recalculation mode, and some other pertinent data. One of *Swift's* major innovations, though, is the use of overlaying command windows. The [START] key prompts the first window with the [HELP] and [SELECT] keys moving the cursor up or down through the menu choices. To choose a selection, [START] must be pressed again. If further options are warranted, more menus pop up, overlaying the main menu. Usually when a choice is selected, the menus disappear, but some options result in an annoying procedure of exiting each menu window until the sheet is cleared of them.

The data entered in the spreadsheet is of three types: text, numeric, or function/formula. Text is entered with a left

Table 1: Functional Comparison	Visi calc	Syn– calc	Swift
abs	x	x	x
acos	x	x	–
and	–	x	x
assign	–	–	x *
asin	x	–	x
atan	x	x	–
avg	x	x	x
cos	x	x	–
count	x	x	x
exp	x	x	–
fv	–	x	–
goto	–	–	x *
ln	x	x	–
load	–	–	x *
log	x	x	–
lookup	x	x	x *
min	x	x	x
max	x	x	x
mean	–	x	x
npv	x	x	–
number	–	–	x *
ifgoto	–	–	x *
if/t/e	–	x	x
if1/2/3	–	–	x
int	x	x	–
or	–	x	x
pi	x	x	–
pmt	–	x	–
print	–	–	x *
quit	–	–	x *
range	–	x	–
save	–	–	x *
sd	–	x	x
sin	x	x	–
sqrt	x	x	–
sort	–	–	x *
sum	x	x	x
tan	x	x	–
text	–	–	x *
var	–	x	x

* Principally used in recalculation mode

justified default and numbers with right justification. Though the range commands in *Swift* are good, there is no range justification command. If text needs to be centered or right justified, each entry has to be preceeded with a special character to let *Swift* know this.

Table 1 compares the functions available in *VisiCalc*, *SynCalc* and *Swift*. Though it doesn't have as extensive a list of functions as some other spreadsheet programs, *Swift's* functions are probably sufficient for just about any personal requirement (unless you're a trigonometry buff.) You'll notice that *Swift* has a number of unique functions not available on *VisiCalc* or *SynCalc*. These are used for programmed recalculations.

Programmed Recalculation

Here is one of *Swift's* innovations that I have not found in any other spreadsheet software–the ability to do programmed re-calculation. This technique allows a spreadsheet template to be used by anyone who can figure out how to turn on the computer. After the template is created, a list of functions/ formulas is entered into a column in an out-of-the-way place on the spreadsheet. This list acts just like a normal computer program's list of instructions. By pressing [SHIFT-OPTION] and selecting the title of the list from a menu, the instructions are followed in sequence. They may include calculations, user input of data, saving/loading of templates or data, and printing. For example, if a template was created to analyze stock holdings, the user would load *Swift*, load the template, press [SHIFT-OPTION], select the title of the instruction list, and follow its prompts for user input. *Swift* would make all the calculations automatically and even print out the results, if desired. There is no need to scroll around the spreadsheet or read instructions. Swift's programmed re-calculation feature makes running a template easy.

Bugs and Quirks

The most annoying thing about *Swift* for me was its quirky behavior when a template was set up with formulas, but data had not yet been entered. It would signal a math error because the formulas were attempting to deal with data that was nonexistent. Once numbers began to be entered, though, the problem disappeared.

After setting up a template and formatting various columns for different widths, inserting a new column can be a nightmare. None of the previously set formats are shifted over to account for the new column. A column set for 15 spaces that was next to one to its right set for 4 spaces suddenly became 4 spaces wide.

Also, setting the caps lock was a useless endeavour. Each new cell reverted back to lowercase.

One other quirk I found was in the synchronization of windows. Two windows can be set up and the user can jump back and forth between them. But if they are set to move in synchronization with each other and a manual recalculation or certain range commands are used, they suddenly become unsynchronized.

Summary

The Swift Spreadsheet was an innovative design that brought a couple of new ideas to the Atari 8-bit community. The use of pop-up windowing menus and programmed re-calculation have not been seen in other professionally published programs. The program, however, leaves much to be desired. This reviewer found many irksome flaws that made using the program tedious and sometimes frustrating. If I had never used *SynCalc* and someone demonstrated *Swift*, I might be awed by it. It is a fine program for what it can do, but it does have definite limitations.

Availability

Standard Swift. This is the original version of *Swift* with the system disk, Commodore 64 manual (there wasn't an Atari-specific manual), and an Atari keyboard reference card. 9.95 Pounds Sterling ($16.95 US Dollars) to non-members, 7.95 Pounds Sterling ($14.95) to ACPC members.

New Swift. This contains the system disk and a new 40-page, A4, comb-bound, Atari-specific manual. 12.95 Pounds Sterling ($21.95) to non-members, 10.95 Pounds Sterling ($18.95) to members.

There are currently two disk formats available–standard Atari 5.25" single density and a 720K 3.5" disk. Please specify which format you require when ordering. There is no price difference. A cassette version is in the works,

For further information, contact:
The Atari Classic Programmer's Club
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LLangefni, Anglesey
Gwynedd, Wales LL77 7UR
United Kingdom

Internet: mbitdc9306@newi.ac.uk

(David Wyn Davies)

[Editor's Note: Michael returned the program disks and manuals to me. I am interested in finding someone who has a stock 800XL or 130XE and is willing to experiment with the programmed recalcuation feature of *Swift Spreadsheet*. I think the recalculation aspect of the program has great possibilities that would be worth writing about. The other thing is that the program is a bit finicky with respect to memory upgrades. Let me know if you are interested. The program and manuals are yours to keep, if you volunteer. –RR]

TextPRO: An Off–line Reader?!?

More Than Just a Word Processor

By Frank Walters

First, I'd better explain what an off-line reader is. On many Bulletin Boards (BBSes), there is a system of transferring packets of selected messages to the caller, in compressed format. You configure the packet system for the message bases you want to receive and then all new messages are gathered and ARChived into a packet and you download it. Many FidoNet BBSes use a system called QWK. The packets are coded for formatting by the BBS, but IBM types have developed Off-line readers that decode the packets and display the messages to you, permitting you to write replies, which are then coded and added to another packet. When you are done, the reply packet is compressed and uploaded to the BBS, which then places ("tosses") the messages in the appropriate message bases (or echos).

Today's Shortfalls

Several Atari programmers have developed off-line readers for the Atari 8-bit. They all work to some degree, but they all have some drawbacks. I found the editors are not flexible enough, especially when using the "Quote" function, which quotes lines from the original message and tags the lines with the initials of the original writer. Most quote the entire original message, preceded by writer's initials ("JS›"). They require the user to delete all the unwanted lines. This often leads to "over quoting" or repeats of old messages within the body of new ones. Such over quoting is in violation of the rules of the FidoNet Atari echo.

Some off-line readers use simple line editors, which restrict the users in correcting or editing their replies. In one case, you could not edit a line once the end of the line had been reached. To me this was unsatisfactory. The best editor I've used with the Atari is *TextPRO*. When *TextPRO XE* was released with multiple buffers, this made *TextPRO* an excellent instrument to be used as an off-line reader. Later improvements in the program, like in those v5.20, made the program even more practical.

Let's divide offline reading into several steps:

> **Key Board Conventions**: Keys on the keyboard are surrounded by brackets. [START] means the START key. Inverse characters are bracketed by "less than" and "greater than" symbols. ‹=› means inverse =, which is entered from the keyboard by first holding down [SELECT] then typing the [=] key. Multiple key strokes are indicated by an "underline" symbol or _ connecting the indicated keys. "CTRL" indicates a "control character" which means the [Escape] key must be pressed prior to entry. [CTRL_G] indicates that you would first press [Esc] once then hold down the [CONTROL] key while pressing [G]. ‹CTRL_G› means to first press [Escape] once then hold down [SELECT], then hold down [CONTROL] key and while holding down both of those keys, press [G]. [CONTROL]_[G] is not a control character, so no [Esc] is required; just hold down [CONTROL] while typing a [G]. The same is true for [SHIFT]_[G].

1. Transfer the messages from the BBS to your disk.

2. Convert the messages into readable format for whatever editor you are using.

3. Read the messages and write replies, saving replies to disk.

4. Transfer your replies to the BBS so they go in the appropriate message bases or echos.

Step 1: Acquiring Messages

There are three ways of getting the messages to your disk. First would be to do what I do. Capture the messages and dump them to disk from your capture buffer. Select continuous read, without prompts and with no page-pausing. You must configure your user file in the BBS for the page-pausing. I suggest configuring 80 columns instead of 40. *Textpro* will wordwrap for easy reading and it halves the number of carriage returns in the file. A problem can develop if your BBS does not support [CTRL]_[S] for pause when your system dumps a full buffer to disk. Gaps in the messages will result. If the SysOp can't help, then you may have

to use another method of getting them. These 9600 compression modems have large modem output buffers that are frequently the cause of delayed pausing. Some can be configured to decrease buffer size if the connected modem does not require compression or error-correction. (AT S15=7 or some number like that.)

Another method is downloading messages in compressed packets. The BBS's I call use an off-line packet system known as Mythical Kingdom QWK. It has the option of receiving messages in either ASCII Text or coded QWK formats. I select Text. If Text is not available to you, then QWK messages could be made readable by a simple macro (see step 2, below) to convert coded Carriage Return (CR) characters into Atari End-of-Line (EOL) characters. The headings would still be unformatted but you could read the text okay.

If you download either of these packets, they must be compressed. For Atari, the only compression you can accept is ARC. If the BBS does not offer ARC or its equivalent and the SysOp cannot or will not support ARC, then you are out of luck for packet transfer. This also eliminates use of any dedicated off-line reader. Fall back to any type of capture you can get. Reading with prompts would take longer but would allow you to repeat any message that got truncated when your buffer became full.

Step 2: Converting Messages

Capture requires no converting. Text and QWK packets must be UNARCed first. Text packets must have ASCII CR/LF converted to Atari EOL. This can easily be done with *TPX 5.20* using the add-in called CONVERT.ADN. I added a few macro keys to use the [START], [SPACE] and [HELP] keys and renamed it with .MAX extension. QWK format packets have coded CR characters, easily converted to Atari EOL with the CONVERT.MAX 1-key convert function. I have the [START] key [#] defined to ‹SELECT__CTRL__;›:

‹SELECT__CTRL__;›
‹SELECT__c›[CONTROL__+]

Note: Do not use [ESC] with the 1-key convert add-in. Just press the keys you wish to convert.

This will change inverse ‹c› to Atari EOL (Carriage Returns) in less than a second. You could use [CTRL__G] Global search/replace, but CONVERT.ADN is much faster.

Here is how I handle the Text format packet system after I UNARC the packet. I have to load the AS-CII file into the TP editor and then convert ASCII CR/LF into Atari EOL using the CONVERT.ADN module to which I added macros for START, SPACE and HELP, and renamed it with .MAX extension. I added a key macro to do both in one-key operation.

I loaded TEXTPRO.MAX and added these three macro keys. I use inverse lower case, which must use [OPTION__SELECT] plus the key to execute: ‹b› loads the packet from the same drive I always UNARC it to, D7:BEJUE.TXT. It is always the same filename. See CBL Data listing for the ‹c›,‹b› and ‹l› macros added to TEXT-PRO.MAX. [Editor's Note: To use this Data Listing see, "Magazine Type-In Listings by Frank Walters," in the Sep '93 *Current Notes*–RR] Use your own filename instead of BEJUE.TXT for your uncompressed Fidonet messages.

‹b›‹=›‹CTRL__P›‹l›[CTRL__L][ESC__DEL]7:BEJUE.TXT[Return]
‹CTRL__G›‹c›

This example shows how to enter a drive number, other than D:, in a macro command line prompt. Following the load command [CTRL__L] a backspace [ESC__DEL] must be sent to delete the colon ":" following the "D". Then you type the drive number followed by a colon to replace the one you deleted. If you use "D:" for default or drive 1, then type the filename after [CTRL__L] in the above macro.

[OPTION__SELECT__b] will load D7:BEJUE.TEXT into bank 1. I always start from bank 1 because LINK.MAX, for loading linked files, assumes that fact. If the load is successful, it will execute macro key ‹c›, which loads the CONVERT macro.

‹c›‹=›‹CTRL__P›[SPACE][CTRL__V]CONVERT.MAX[Return]

This pre-selects the [SPACE] key to execute when CONVERT.MAX loads. I have the [SPACE] macro designated to execute the ASCII to ATARI conversion, which in version 5.20 is [CTRL]__[;], followed by [Y] for "Yes." The conversion takes less than a second and I press [HELP] to re-load TEXTPRO.MAX. HELP [?] is the other key I added to the CONVERT.MAX:

?‹=›[CTRL__V]TEXTPRO.MAX[Return]

CBL Data Listing

```
0 REM ‹c›, ‹b›, ‹l› macros. Add to TEXTPRO.MAX
1000 DATA   227,189,144,32,22,67,79,78,86,46,77,65,88,155,226,189,6443
1010 DATA   144,236,12,126,55,58,66,69,74,85,69,46,84,88,84,155,2694
1020 DATA   135,227,236,189,144,35,22,76,73,78,75,46,77,65,88,155,3290
```

Suppose when D7:BEJUE.TXT first loads it is too big for the buffer and a "Linked Load" results. The pre-select key ‹CTRL__P›‹ɸ› indicates the ‹ɸ› macro will execute in that case. ‹ɸ› is my TEXTPRO.MAX key to load and execute the LINK.MAX macro to load linked files into successive banks. My first macro ‹b› will automatically branch to the ‹ɸ› macro when "Linked Load" occurs because the pre-selected key is designated.

ɸ‹=›‹CTRL__P›#[CTRL__V]LINK.MAX[Return]

The ‹b› macro has pre-designated the ‹ɸ› macro to execute in case a "Linked Load" occurs. The ‹ɸ› macro pre-designates the START [#] key macro to execute automatically after LINK.MAX loads. [#] will load the rest of the linked file into bank 2 (and 3, 4, Main if necessary).

So one macro, [OPTION]__[SELECT]__[b], will load and convert the text file. But if the message file is too large to fit in the buffer, then the alternate macro executes when "Linked Load" occurs and loads the rest of the file into other banks. If the latter occurs, *Text-PRO* will automatically be reloaded because of the way LINK.MAX was written. Then I simply execute the CONVERT.MAX by using the [OPTION]__[SELECT]__[c] key from the keyboard. It will convert bank 1 only but CONVERT.MAX remains in the macro buffer until [HELP] is pressed. Switch to each bank and press [OPTION__SPACE] to convert them to Atari EOL. You could use [CTRL__;] and then press [Y]es, but I recommend the [SPACE] macro to do both at once. Press [HELP] to re-load TEXTPRO.MAX when done. Then I save the banks, in order, back to disk, using the Append (,A) parameter for bank 2, 3, etc. filenames.

Actually, all my *TextPRO* macros are in ramdisk (D6:) but I showed the above examples as loading the macros from default D: drive. Loading from other than D: would be similar to loading BEJUE.TXT from D7: above.

Step 3: Off-line Reading & Replying

If you have 4 banks available, you must decide which bank to use for writing your replies. Assuming Banks 1, 2 and 3 have your messages, you have Banks 4 and Main available for replies. [CTRL]__[T][4] will take you to Bank 4. Then press CTRL]__[T][1] to return to Bank 1 for reading the first batch of messages. You have just set the last two banks and may subsequetly use [CTRL]__[B] to toggle between Banks 1 and 4, while writing replies.

TPX 5.20 has a Screen Page Up and Down key. [CTRL]__[N] is Next page down and —[SE-LECT]__[CTRL]__[N] is page Up. Ronnie has designated two Softkeys to do both these functions and I recommend you try these. [SHIFT]__[CTRL]__[=] (cursor down) is designated for [CTRL]__[N] to page down and [SHIFT]__[CTRL]__[-] (cursor up) is assigned [SE-LECT]__[CTRL]__[N] to page up. This makes reading a piece of cake. Each time you page down or up, one line of the previous page is retained as a reference to where you left off reading.

How to reply to a message depends on how your Fidonet BBS accepts message entries. I no longer use the "Reply" function since it takes too long to locate the original message to use the Reply function. I enter each reply as an original message. [E]nter is the prompt on the BBS I use. Be sure you select the correct message base or echo first. You must know the exact sequence of prompts when you type a message. I will use the example of how my system works.

First, I must enter the Name of the person I are replying to, followed by [Return]. Next is the Subject, followed by [Return]. Finally a [Y/N] prompt asks if any changes. I must enter an 'N' in my reply, immediately following the subject line and preceeding any quote or text.

Using [CTRL]__[D] I delete the name from the original message to the paste buffer. [CTRL]__[R] replaces the name again but retains it in the paste buffer so I can toggle [CTRL]__[B] to the reply Bank and [CTRL]__[R] to enter the "TO:" name. I use the same method to delete and replace the subject, or simply type the new subject on the second line. Each line must have a [Return] at the end.

If you wish to quote some portion of the original message, use the same method to delete/replace, bank switch and replace, until you have what you want in your reply. Then edit the reply by deleting any portion that does not apply to your message. Remember to keep quotes brief, just enough to refresh the memory of the readers about the topic you are discussing. Never quote Origin lines. I take out the 80 column [Return] characters between segments of the same quoted sentence or paragraph, to permit the BBS to reformat the lines when I upload my message. I separate quotes by [Return] characters when they are pasted from different parts of the original message. i.e. One quote is separated from the second quote by unquoted lines. To insert initials to identify person quoted, I wrote a quote macro which I added to the end of TEXTPRO.MAX.

Q‹=›‹CTRL__G›qq‹=›[CTRL__T]I‹=›[Space]
[CTRL__I][CTRL__T]U[CTRL__Q]‹CTRL__I›

```
[CTRL__Q][CTRL__T]L[CTRL__INSERT]N
‹SELECT__ESC›‹CTR L__P›‹‹CTRL__A›
Delete "N" [Return]
[ESC__CTRL__DEL][ESC__SHIFT__=]‹‹‹=›
[ESC__SHIFT__=](no return)
```

It looks more complicated than it is. See the Quote Data listing to create QUOTE.MAX using Analog's MLEDIT or my DATA2OBJ.LST program from September 1993 issue of *Current Notes*. You place the cursor on the first character of the quoted line and press [OPTION]__[Q]. It will insert a "==›" at the beginning of the line and enter the "Input" mode in Upper Case. Type the two letter initials of person quoted and press [Return]. This prompt will appear:

Delete "N": Sure? [Y/N]

Reply [N]o if it is the first line of your message. The "N" is part of the heading entry, immediately following the subject line. I included it in the Quote macro because I often forgot to include it in my replies, thoroughly screwing up my subsequent upload. If the quote prompt is in a later part of your message, then reply [Y]es and the "N" will be deleted. Lower Case is selected and the cursor jumps to the next paragraph using [SHIFT]__[=] paragraph-down key.

Type your reply, referring to the original message as often as necessary by using [CTRL]__[B]. If you want a Tag line at the end, there are several ways to do it. One is to load a Tag-line file into a spare bank and delete/replace a selected line into the reply. Another is to write a standard Tagline as a macro. I use [OPTION]__[TAB] for typing a stock Tagline with a macro.

My method of saving replies is using a letter and number to identify the reply files by echo and number. i.e. A1, A2 for Atari messages. It is a good idea to lock the messages as you save each one to prevent accidently saving another reply with the same filename. (It's been done more than once.)

If your messages are in more than one Bank, when you start reading from Bank 2 use [CTRL]__[T] to switch to Bank 2 and [CTRL]__[T] the first time you select the reply Bank. Now you may use [CTRL]__[B] to toggle between the last two banks selected.

Step 4: Uploading the Replies

After logging on to the BBS, select the message area or echo where you wish to upload your replies. Select the menu item to Enter an original message.
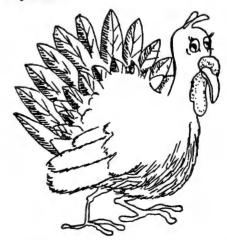
When you get the prompt to enter name of person it is addressed to, select the ASCII upload method (XON/XOFF) and not a block transfer method. Type your first filename (A1) and enter a delay rate that you have found to work successfully for the system you are using. With *BobTerm* calling *QuickBBS*, I found a delay of 2 works fine with this method.

With some systems I found several characters in the beginning of my message were being lost between the heading block and body of message. I worked this out by inserting a certain number of spaces between the first "N" following the Subject and the first character of the body of my message. If characters are dropped, they will be spaces. If you have a few too many spaces then it simply indents your first paragraph and you don't have to bother to later edit out the spaces.

For the first few times you use this method it would be good to List your message before Saving it, to be sure it is what you wanted. After Saving the message, repeat the process for each additional reply. Change to other message areas to upload replies to other echos if necessary.

Summary

That's all there is to it. The use of macros has greatly simplified the process but none of them are absolutely essential. It can all be done manually if you choose. Upgraded memory computer owners should use ramdisk wherever practical to speed up the whole operation.
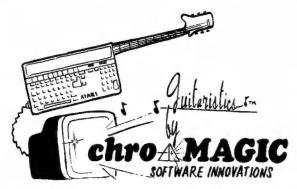
Games

#854: Jurassic, Lunacy 3.1, Pure Logic, Reaction II, Space!, Thingy, Life Bugs

#855: Droid, Triad, Warship

#856: Bat Invaders, Bat Risk, Bat Solitaire, Bat Sub, DungeonLord, Maze

#857: Cold Revenge, GNU Chess, Acc games (Puzzle Slide, Tic Tac Toe, Flip-Flop)

#858: GRANDAD and the Quest for the Holey Vest

#859: MIDI BATTLE - (STe)

#860: Pegasus (Disk 1)

#861: Pegasus (Disk 2)

#862: Bounce, ST Doodle, Search Me V2 (M)

#863: Word Quest - V3.1, word search puzzle maker w/puzzles.

#874: Towers (Disk 1)

#875: Towers (Disk 2)

#876: Land Mine, Match Up, Super Dark Pearl, Highscore terminal utility

#882: Shocker V2 (M)

#895: ESCAPE graphic adventure

#897: Medieval Chess

#919: Star Ball, Orion's Run

Utilities

#864: Uncle Carl Utilities - Belef v2.02b, HeidiSeek v2.07a ProFile v1.01c, ProLock! v1.05.

#872: ARC/LZH Archiver

#879: 33 small utilities consisting primarily of formatting and copy programs

#880: 28 small utilities covering bootup, files, folders, floopy, and desktop.

#881: 15 More utilities (cli, file manipulation, unix utilities, etc)

#889: Two in One v1.03, Oculator V3.01b, Profile v1.5

#893: Clock, Everest v3.2, Memory Watch v2, Pen Pal v1.0, New2PC1, Revenge Document Displayer v3.2, R-Gon v1.2, WhatIs v6.7

#894: Esscode v5.06, Led Panel, LHarc v3.01, Splitter v2.0

#918: ST Zip v2.6, ST Tools v1.93

Text/AtariWorks

#865: AtariWorks #2

#866: AtariWorks #3

#873: A Tribute to Frank

#883: AtariWorks #4

Telecom

#867: TripLink BBS V7.2

#868: Teddy-Term2, MaxiMiser

#869: Storm v1.0, Mountain QWK V1.18

#878: BinkleyTerm

#885: Turbo Board ST v1.0, HS Modem

#890: Connect V2.46E

#892: BAT100, Teddy Term v2.12, BBS Express BBS list

Applications

#870: Grammarian V1.1.0, MyDraw 1.1, No Frils Labels 1.05, TeraDesk 1.36

#871: German -> English V3.0

#884: MarceL V2.2

#887: Euler - Mathematica clone

#888: The Printing Press V3.03

#896: AIM (Atari Image Manager) V3.1

#898: PAD V2.4 (M) drawing program

#911: Marcel v2.3 w/spell-check dictionary

#912: GEM View v3.05

#914: Sheet V2.3

#915: Ref Base v1.4 (m)

#917: Master Browse 4.4, ColorBurst IV, Alarm Clock

#920: Speed of Light v3.1

Languages/OS

#877: 2ND GFA Basic Manual, 3rd edition.

#886: ZX81 Emulator

#891: MAGE Demo

#899: NeoDesk Icons No.1

#900: NeoDesk Icons No.2 (+ Secrets of NeoDesk)

#916: OMEN v2.5

DTP: (IMG Holiday Clip Art

#901: Weddings

#902: Mother's & Father's Day

#903: Halloween

#904: Octoberfest

#905: July 4th/Columbus Day

#906: St. Patrick's Day

#907: Valentine's Day

#908: Easter/New Baby

#909: Anniversary/New Years

#910: Birthdays: George & Abe

#913: Calamus No. 9

CN Cartridges are 44MB Syquest cartridges filled with the latest in Atari pd and shareware software. Carts are $120 each; any 2 for $220; any 3 for #300. Add $5 for S&H. Order carts or disks from CN Library, 122 N. Johnson Rd, Sterling VA 20164. Call (703) 450-4761 to place your MC or VISA card order.

GEnie NOTES

by Wally Wilson

Howdy! Welcome to the latest installment of GEnie Notes. As I sit here winding up to pitch the final effort into finishing things up, I'm reminded of my beginnings in computing. I never imagined that I might be here one day, bringing news and information to fellow computer users in a medium I've been a part of, enjoyed, and watched grow since 1978. It is a very good feeling, being here, and I hope to be able to live up to the quality and excitement Lou Rocha brought to this very column.

Just recently, I joined the Atari ST RoundTable staff, and here we see the immediate results. By way of introduction, I am Wally Wilson, of Kalispell, Montana (currently a member of the U.S. Coast Guard). By nature, I am a whitewater kayaker, sea kayaker, downhill skier, mountain-biker, helicopter mechanic, fly-tying fly-fisherman, and all around Atari computer user. I welcome any and all letters, and can be reached on GEnie at **ST.WALLY.** Please feel free to write in with any questions you may have, or if you just want to pen pal in e–mail.

This issue finds us perusing some of the more useful utilities, GEnie services, and hardware that folks with computers and modems come to find themselves needing more and more frequently.

Gordon Meyer brings us two excellent reviews on recent additions to the Atari ST Library. Atarians cruising the Internet will be happy to hear about a multi-format file encoder/unencoder utility with GEM interface.

Anyone thinking of finally getting a SCSI tape drive for backups will be interested to know about a new SCSI tape backup utility. It is MultiTOS compatible, and offers some pretty exciting features to tape backups that I've not heard of on any platform!

With all the changes in the computer industry, it is nice to know that Atari developers and users are online and ready to assist you in your computing endeavors. Without the help of these folks this issue of GEnie Notes would have been nearly impossible to produce . . . and that is just the tip of the iceberg when it comes to Atari computer support on GEnie! You can find more information on joining GEnie elsewhere in this issue of *Current Notes*.

RTC Highlights
by Brian Harvey

Greetings, and welcome to another Genie Atari RoundTable Real Time Conference roundup! By the time you read this it will be Autumn. However, I will be discussing the summer's schedule on Genie. OK, so you don't use your computer during the summer since you'd rather spend your time with more mundane pastimes such as sun bathing, wind surfing, mountain climbing and solving the world's problems via diplomatic negotiations! Unfortunately, you would have missed three fun GEnie RTC's this summer.

The sad note of the summer was the Dateline Atari RTC held on 3 June 1994 and hosted by Lou Rocha. This RTC was titled " . . . all good things must come to an end . . .," and was Bob Brodie's last RTC as an employee of Atari Corporation. By now, you may have heard this news; and if you didn't make it to this farewell RTC, you really missed a fine event.

Bob Brodie began as a member of the H.A.C.K.S. (Hooked on Atari Computer Knowledge Enthusiasts) user group during the mid-1980's. That group included other prominent Atarians such as RT Sysop Darlah J. Potechin and Glendale Organizer John King Tarpinian. From this beginning he rose to the position of Director of Communications at Atari. It was in this capacity that he coordinated information among Atari Corporation, the press, the dealers and the userbase. Bob has accepted a position as Director of Technical Support with GS Corp, a developer of NeXT Step applications.

Bob started the RTC by giving his perception on the history of his involvement in the computer field. After Bob's introduction there were words of praise from Nathan at DMC, and then I asked if anyone would be hired to take his place online or in communications. Sadly, he stated that no plans had been finalized; this remains true at the time of this writing.

Bob is not planning to leave the Atari scene, totally, since even his fast 486 does not compare to his home system of a TT, *Calamus SL, Atari Works*, with *Speedo*, and *Stalker*. In fact, he said he will be writing an article for *AtariUser Magazine* entitled "Why You

Should Use an Atari Computer." We will all miss you Bob!

On the 15th of June, I hosted the Atari Explorer Online (AEO) Roundtable Conference with the staff of AEO! The staff present consisted of Travis Guy, Albert Dayes, Michael Burkley, Timothy Wilson, Ron Robinson, Tal Funke-Bilu, and Boris Molodyi. As Editor, Travis began the RTC by commenting that AEO is a separate entity from Atari Corporation, but still maintains "a special relationship with the corporation."

AEO has many firsts, such as IBM building the Jaguar, solid facts on the Jaguar and in-depth reviews of Jaguar games. It was kind of Travis to remind everyone that, like Atari Corporation, AEO makes Genie their online home!

During the RTC there were prizes given away, such as a FREE copy of the "AEO at Summer CES" video won by Rod Martin and a FREE Jaguar Cap and T-Shirt that Davey Haupert received. Although the RTC's primary focus was the Jaguar, there were some Atari computer related questions.

Host Mike Allen had Anthony Watson as the RTC guest on 29 June 1994. Anthony, of Mountain Software, first announced the pending release of *Mountain Reader II*. It is felt to be the finest offline message reader for the Atari ST platform. It is the ONLY Bluewave compatible reader available for the ST.

Mountain Reader II may be his new project, but a lot of questions were asked regarding his other fine programs, such as *The Recipe Box*.

Anthony started by stating that QWK and Bluewave are "predefined file formats" for exchanging messages with a BBS. The files are called "packets," and are created by the BBS software, or by an external program called a "mail door." You then need software called, an "Offline Reader," that will decode these files, allow you to read through the messages, and enter any replies. The offline reader then encodes your replies so you can send them back to the BBS.

This ability to read the messages, e-mail, and new files offline not only saves money, but time as well, by not requiring you to wait for the system to switch to the next message base, etc. The benefit to the BBS is that the system isn't tied up for such a long period of time; thus, more people can use it!

Mountain QWK needs your terminal program to upload or download the messages for the program.

That is, it is a reader and not a stand-alone communications program. *Mountain QWK* runs smoothly under both *Geneva* and *MultiTOS*, and was one of the first offline readers to be Falcon compatible.

Anthony was generous and gave away two copies of *Mountain QWK*. The lucky people were Michael Troupe and Ronald Watson! Another reason why joining in on these RTC's can be profitable and fun.

The final RTC up for discussion was the Atari Corporation RTC with Atari employees Dan McNamee and Tom Gillen. This RTC was held on 15 July 1994 and originally was supposed to have Jeff Minter in attendance. Unfortunately, he became ill and these two, good gentlemen filled in at the last minute. They did such a professional job that I have been bugging them to return for more exciting RTC's!!

Dan McNamee has been a veteran of Atari Corporation for 6.5 years and has worked in many areas of the company. He began in Technical Support and currently is in the software test group. He is an Atari user of many years and this is supported by the fact that his parents bought him the original Pong machine, then a Super pong machine when it became available.

Tom Gillen is the Manager of the Software Test Department at Atari. He said he was new to the RTC way of communicating but you would never know it by the smooth way he handled himself during the RTC! Tom commented that they have been very busy with the development of the JAGUAR and will be even more so in the future.

Obviously, since these two people are in development, the main focus of the RTC was the quality and bug-free playing of JAGUAR games. Dan stated he is "very satisfied with the quality we have seen so far. The games have all been really solid." Tom added that anyone who "appreciates the power of the Jaguar" will be satisfied with the JAGUAR games in development.

They mentioned that the CD-ROM for the JAGUAR will be launched in the Autumn and is expected to make an impact for Christmas. Tom mentioned that there has been discussion of a computer, based on the Jaguar chip set. Also, that the Falcon has been licensed to C-LAB, and they are looking to upgrade it.

Tom went on to discuss that a typical "day in the life would usually consist of my dealing with the software coming into Atari, and then handling delegating it to my testers. They look for many things in a game

besides program bugs, like graphic, control, addictibility, long lastingness, etc, and make comments pertaining to these different areas in the form of a test report that is then given to the project manager, and then sent out to the developer. Our opinions are listened to very closely by not only most developers, but also the high-ups, like Sam Tramiel. We have earned a good reputation within and outside of Atari." Good to hear it, Tom!

Atari Corporation was honored to have Travis donate a copy of AEO's video "AEO at Summer CES" as a door prize!! This was won by Jim Thornhill who was wise enough to attend an RTC where prizes were available. The second prize had Nate Trost picking up a free Jaguar T-Shirt (large size), and a bumper sticker. The third prize had a free copy of a Llamasoft poster (it's a picture of a llama smoking a stogy ‹grin›), signed by Jeff Minter as a door prize!!! This poster was won by Steve Johnson!

The last question of the night from Travis was meant as a joke: You have a space marine, an Alien and a Predator all in a single room. Who wins? ;)
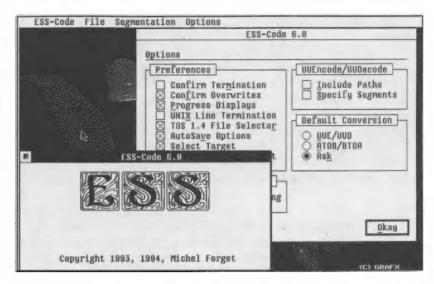
I suggested Atari and only time will tell if I am right. Well, as usual I could go on for pages and pages but we are only trying to give you a taste of what an RTC on GEnie is like, and not include all the details. Don't forget, we have RTC's in the Atari ST RoundTable every Monday (Desktop Publishing and Graphics) and Wednesday (Open House) night at 10:00 p.m. and a Help Desk every Sunday at 9:00 p.m. Also, on the first and third Thursday, there is a Programmer's RTC at 9:00 p.m. All times are EST. Until next time, good *A T A R I* computing!!

GEnie ST Library
by Gordon Meyer

ESS-Code — If you've been "surfing" on the Internet, you've no doubt discovered that many files are distributed in *encoded* format. This allows binary files, such as programs or pictures, to be e-mailed or otherwise treated as if they were regular ASCII text. In order to utilize an encoded file, you must first convert it back to its original format.

ESS-Code is, by far, the best Atari program for handling these files. *ESS-Code* supports the four

most common encoding methods: UU, MIME, SHIP, and BTOA. Most of the time, you'll likely use the UU format encoding (called UUE) and decoding (UUD) features of the program. Should you ever need the other formats, *ESS-Code* is about the *only* place you'll find them in Atari-land.

The process of translating a file back to its original form is rather straightforward, but it can be awkward. *ESS-Code* simplifies the steps greatly because it features a modern GEM interface. You'll feel right at home using this program, which is more than can be said for some other UU-coding utilities. If you have the *ST Guide* hypertext desk accessory installed (**ST-GUID_E.LZH #33065** on GEnie) you'll discover that *ESS-Code's* online help is a handy reference.

ESS-Code is shareware from Electric Storm software. Registered users get an optimized version and a couple of nice bonuses. If you need this utility now, you'll love it. If you don't need it now, you probably will soon. Download **ESSCOD60.LZH (File #33088)**.

GEMAR — One of the latest uploads to the library is *GEMAR*—a SCSI tape backup program. If you're fortunate enough to have a streaming tape drive, or you are considering one, you should definitely check out this program.

GEMAR allows you to backup selected files, directories, or entire partitions. You can save a set of files and folders as a *macro* that you can re-execute at any time. This allows you to identify your most important files, then back them up all at once.

If you're a *MultiTOS* user, *GEMAR* comes with an XFS driver that allows you to install your tape drive as a drive on the desktop. This allows you to open, view, and copy files as if they were on a regular disk!

It's a great method of getting at your backed-up files without having to reload them on your hard drive.

According to the documentation, *GEMAR* has been tested on about a dozen SCSI drives, and from the looks of the list, the program should work on just about any drive you might have. Since the program is shareware; you can try it out for yourself before registering it. There are lots of parameters and options you can set, both for the drive itself and various back-up options. You can even have it compress your files (using standard .TTP compression programs) before they are copied to tape. *GEMAR* features a modern interface, hypertext help, and English documentation and menus (The program is from Germany). Download **GE-MAR228.LZH (File #33864)** and check it out for yourself!

Around GEnie
by Wally Wilson

GEnie

The Automotive RoundTable

Shifting into first, I rounded the corner and headed for *GEnie Route 755; the Automotive RoundTable*. There, inconspicuously tucked away on page 755 are over 465 Topics concerning everything from Audi's to Z-28's, from car clubs to vehicle maintenance, and from interesting home-fixes to automotive sound systems. It's all there, and I hadn't a clue until I actually saw it for myself.

The Automotive RoundTable is run by Greg **<GREG.AMY>**. He is assisted by his Chief Mechanic, Gordon; Sales Manager, Alan; Racing coordinator, Deb; and his Resident Engineer, Jim.

As I said earlier, there are over *465* Topics of discussion spread evenly through 25 different Categories. After looking through the Topic list, I found myself wishing I'd been hanging around here from the very beginning. A small sampling of Categories reveals subjects such as The Car Buying Experience, Ask the Mechanic, Swap Meet (it really is an honest-to-goodness swap meet, online), Product and Vehicle Reviews, and Alternative Energy Vehicles.

If you are interested in racing, the Racing Category covers Indy, Formula One, NASCAR, IMSA, and Kart racing for starters. The look and feel of the Topics are very friendly and it is easy to tell you are in an area where people are genuinely interested in what they are talking about, and whom they are talking to.

I was also very impressed by the different vehicle owners' clubs present. Nearly every make of car or truck is represented, and it looks as if there is ample room for new additions. The National Motorists' Association (NMA) is also active here, and one of the RoundTable menu options actually allows for NMA members to sign-in!

The Automotive RoundTable has its Weekly Real Time Conferences every Thursday Night at 9:30 PM EST, and they welcome everyone to their Conference Room (M755;2). Come on over and check this out! I know I'll be coming back here to find out what I missed, and to bring you more news of Automotive RoundTable events in the future.

The GEnie Mall

A long time ago, I thought all online shopping services were just places to take your credit card and get computer supplies or products. Not too long after *"a long time ago,"* I found myself having to revise this way of thinking (though, the credit card is still a necessity).

GEnie Shopping can be accessed at page 700 (*M700*), and is full of products and services. You can get your credit report from TRW, shop insurance, buy compact discs, get hobby-craft supplies, and buy coffee. There are over 30 stores, merchants, and service providers online, right here. Lost your *Land's End* catalog? No problem, they're here as well! You can also pay your bills from your computer.

That's not all; looking down the list, you'll find the Business Incorporating Guide and GEnie's Online Business Center. You can also get your prescriptions filled, order some new contact lenses (*blue*, of course), get some flowers sent to your loved ones, and pick up a new printer and some floppies; all from the comfort of your computer chair.

The Mall is divided into products and services in such a fashion that you really don't have to wade through metric tons of scrolling ASCII to find what you are looking for. The box on the next page provides a peek at the GEnie Mall menu so you can take a look for yourself. As you can see, this kind of organization makes finding goods and services much easier, and takes the hassle out of online shopping. No more sore fingers typing from aisle to aisle looking for that particular modem from four or five different vendors.

The commands are really quite simple, and all oriented on the actual real-life shopping mall experience. To get to the GEnie Mall, type **MALL**. From there

you can switch to any **AISLE**, get a list of **STORES, FIND** products, and **DISPLAY** the contents of your shopping basket. When you have everything you want, you can **CHECKOUT**. If you decide to put everything back, don't worry, you won't have to suffer the act of putting it all back on the shelves, just **EMPTY** your shopping basket. It's a snap, it's a short drive, and it's on GEnie!

Atari ST Round Table Discussions

CaTTamaran
by Lou Rocha

One of the most exciting new products to come along this year is the CyReL CaTTamaran TT accelerator module for the Atari TT030. Just what is it? Read on:

CYBERCUBE [Ralf]: We are not exactly promising you warp speed, but Cybercube will transform your trusty TT into something excitingly different.

Put the fun back into computing. Buckle up, switch your CPU into overdrive and take a test drive with the new CyReL CaTTamaran TT030 Accelerator Module from Cybercube.

You can install the CyReL CaTTamaran inside your TT030 in a matter of minutes. An enhanced version of our highly acclaimed *RUN-ME-FIRST* interactive installation program will show all the details and necessary steps right on your screen. Comprehensive,

easy-to-understand diagrams and instructions will guide you through the whole process.

How does it work? Easy. Simply use the *CyReL Dashboard* control accessory to select either the standard 32 MHz, or the absolutely amazing 48 MHz of operation. There is no need to replace the CPU. You do not have to add costly caches and you will get up to *50%* more power for a fraction of the price you might expect.

OK, OK enough of the commercial. Most TT users have some questions of a more practical bent, namely where do you get a hold of one:

CYBERCUBE [Ralf] Two of the most frequently asked questions about the CyReL CaTTamaran are: "Where can I get my CaTTamaran?" and "Can I buy the CaT-Tamaran through my local dealer?"

Here is an excerpt of the coming CaTTamaran FAQ #4:

Yes. Here is the *partial* list (current as of the indicated release date). You can order your CyReL CaTTamaran through any of these fine dealerships or representatives:

North America:

Horizon Computers	Denver	Colorado
ATY Computers	Oakland	California
Mid Cities Computers	Bellflower	California
Toad	Severna Park	Maryland
Computer Studio	Asheville	North Carolina
Neutronics	Honolulu	Hawaii
CompuWorld	Scarborough	Ontario
DMC Publishing	Markham	Ontario
Scarborough Computers	Scarborough	Ontario
Cybercube Research Ltd	Thornhill	Ontario
Focus Computers	Toronto	Ontario
Vision Computers	Eugene	Oregon
Computer Direct	Spruce Grove	Alberta
Flickertel	Minot	North Dakota
CompusellerWest	St. Charles	Illinois
Elden Computers	Charleston	West Virginia
Click Here Computers	Ottawa	Ontario
CompuWare	St. Andrews	Manitoba
Run PC	Fort Collins	Colorado

International:

Multimedia Studio	Singapore	Singapore
ETH Computers & Sten Ltd	Vantaa	Finland
COMPO	EK Vaals	Netherlands
OverScan/COMPO	Berlin	Germany
System Solutions	London	UK

This list will be updated regularly. Watch for the new CyReL CaTTamaran files to be uploaded shortly.

One of the best features of dealing with people like Ralf and the local dealers listed above is the terrific support you get. Support? Isn't that supposed to be an alien concept in Atari Land?

VORTEXT ** Warning! Moderately Lengthy Post ** but you might want to read it.

Let's start at the beginning. A few weeks a go I bought a CaTT from my local dealer. Eager to try it out, I took it home and prepared myself for the installation, which was supposed to be fairly simple. Not being a tech minded person, I felt if I could do it, anyone could.

After opening up my TT as instructed to by the installation procedures that come with the board, and looking around inside it for the proper locations to connect to, I decided that it was wiser for me to close everything back up and let someone who knew what they were doing put it in. So much for the first part. It would seem that the CaTT is easy to install, if you know a little something about motherboards and such.

So far, things were still okay. The next day I took my machine back to the dealer and sat around while he installed it and then we tested it out. Once again, drool was forming at the corners of my mouth in anticipation of what was about to happen.

We booted the computer and, low and behold, mega bombs went off. As the memory check appeared on the screen, I began getting those awful little 'XXX' instead of nice comfortable '−−−.' Things were not looking good. It had been brought to our attention that some power supplies were strained a bit by the addition of the CaTT if there was a lot of memory present in the system. I had 32 so we decided to trim it and see what happened.

We took the machine down to 16 and things seemed to be just fine, briefly. I was able to boot just fine but upon attempting a re-boot, the system crashed. Again we tried trimming memory. No good.

To shorten this part of the story, nothing we tried would get the CaTT to behave on my system. The dealer made several calls to Cybercube and Ralf was quite helpful on the phone, but we could still not get it working properly. I left the machine with my dealer and went home.

A very nice thing happened at this point. My dealer let me take home the TT he had in the store, so that I wouldn't be without a machine. We put my hard drive into his machine, but he kept my memory and off I went.

A couple days later, after several more attempts to get it all up and running, I decided to have the dealer ship the TT off to Ralf at Cybercube. I let him know it was coming and they informed me they would look into it.

Well, my TT made it to Canada, Ralf took a look at it, and he got it working shortly thereafter. Just what the problem was, I'm not sure, but it didn't seem to take him long to find it and fix it. Very soon thereafter, I received my machine back, high tailed it to the dealer, swapped out the hard drive and was back home contentedly working away on my own, beefed up, TT.

Although there were these problems to begin with, both the folks at Cybercube and my local dealership were very helpful in working through this entire matter. I would like to thank Ralf at Cybercube, and Alex at ATY in Oakland for their assistance and wonderful customer support. It is these kinds of people within the Atari community that keep folks like me here and buying products from them.

The CaTT works just fine now in my system and even though I had to suffer a few birth pangs, the delivery was fine and the baby is healthy. Keep up the fine work and thanks, again, for all your help.

Daniel

In fact, you can even learn to improve other components of your TT along with adding a CaTTamaran if you really want to make it scream. Just follow the CaTTamaran category in the BBS (Cat 4, Top 33).

GEnie Sign-Up

To sign up for your very own GEnie account, follow these simple steps:

1. Set your communications software for half duplex (local echo), at 300, 1200, or 2400 baud.

2. Dial toll free: 1−800−638−8369 (in Canada call 1−800−387−8330). Upon connection, enter HHH.

3. At the U#= prompt, enter XTX99437,GENIE andthen press [Return]

4. Have a major credit card ready. In the U.S. you may also use your checking account number.

Woods Music

by
Gary Woods

Dolby Surround Sound

An Interview with
Steve Thompson of Dolby Laboratories

It all started when I got myself a 50" Big Screen Projection Television for Christmas. Soon, however, some of my friends started whispering in my ear, yeah big screen is cool, but you ain't nothin' if you ain't got Dolby Surround Sound. Well, one day I'm cruising through that Mecca of High End Audio, the Price Club, and up pops a decoder for Dolby Pro Logic. The decoder cost $150, 2 surround speakers came in at $50, and the speaker for the center channel was another $50. So, for a cool $250, put together with my home stereo, I had Dolby Surround Sound. I figured that for $250, even if it sounded bad, I could live with it until I got something better. Well, it sounds great. Most video cassettes are recorded in Surround, and a lot of TV shows are starting to be recorded this way. The sound is like the difference between Mono and Stereo times 4. To get the story on Surround and how we can take advantage of it in our home studios, I contacted **Steve Thompson** at Dolby Laboratories in Hollywood.

Gary: *What does the person at home hear with Dolby Surround?*
Steve: The speaker configuration is Left-Center-Right-Surround. This configuration also allows you to separate your Left and Right Speakers a little more and still keep the dialogue anchored to the screen. Because there is a center speaker it widens the usable viewing area so you don't have to sit directly in front of the screen to hear the soundtrack properly. This is the reason that three speakers have been used in theaters for quite some time.

Gary: *What hardware is required?*
Steve: At home, mostly a Pro Logic Decoder, which you can buy in many different forms. It's available in TV Sets, stand alone units, or the most popular option, an Audio/Video Receiver. You can buy an AV Receiver with Pro Logic, all your Video and Audio switching, 60 Watts across the front, and 30 Watts in each of the rear channels, for about $250. Or you can spend up to 40 to 50 grand for a system.

Gary: *It's after the signal is decoded that you can spend the extraordinary amount of money, isn't it?*

Steve: Exactly. That's what you get for the more money. Better amplifiers, better general signal path, better speakers, more features.

Gary: *What kind of Encoders and Decoders are required by a studio to achieve Surround?*
Steve: There are two separate scenarios, one being the film situation where we use a box called the DS-4. This is the Dolby Stereo Film Encoder. It has monitoring for film mixes, Dolby Noise Reduction, SR or A, as well as Optical Process Monitoring so you can know what's going to happen when the soundtrack goes to Optical. The other option for projects that don't need the extra film processing, is the SEU-4 Encoder, and the SDU-4 Decoder. You can purchase an SDU-4, for $2,200; it's basically a pro version of a Pro Logic Decoder. This box offers calibratable inputs, XLR connectors, and mode checks on the front for Mono, Stereo, and Surround compatibility.
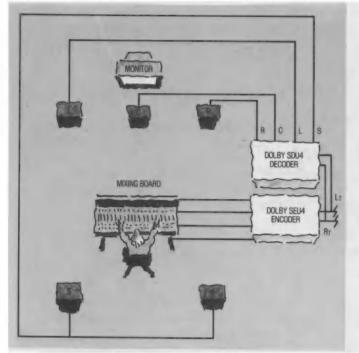
The SEU-4 Encoder is a simpler looking box that has no controls on it, other than input and output trims, and a little bit of metering to tell you if you're properly aligned. This unit can be leased for $1,000 a year to studios, or we provide it under a licensing agreement. We encourage people who are doing this kind of thing to give us a call, and we'll set up the best program for them.
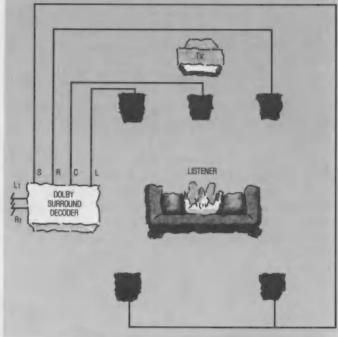
Gary: *What does it cost to license Dolby Surround for a project?*
Steve: Our general license fee for film is $7,500, with video projects much less. In video, we're generally just trying to promote the logo, so basically the licensing fee covers our engineering costs.

Gary: *What's the Optical Process Monitor?*
Steve: That's the section of the DS-4 that simulates what's going to happen when your soundtrack goes to optical film. It's got a low pass filter, and a limiter that simulates the limits of optical printing. Generally, with optical, below about 12 kHz you're okay, as long as you control the head room on the mix. The optical process monitor only effects the monitor chain while you're recording.

MIXING IN DOLBY SURROUND

LISTENING IN DOLBY SURROUND AT HOME

Gary: *How would you set up your studio to take advantage of surround?*
Steve: You want to be able to at least monitor Left-Center-Right and Surround channels. Meaning that you need to have three front speakers, usually matched, and at least two rear surrounds. Because the Surround Channel is band limited to 7kHz, you don't need full band width speakers in back. In the future, however, with Dolby Stereo Digital, we will have the capability of full band width on all channels, as well as discreet Left and Right Surround channels, and a subwoofer.

Gary: *No special amplifiers or mixers?*
Steve: You need to have amplifiers for every channel, and flexibility in your mixing console is a nice thing to have. You want to be able to assign or pan among all four channels, and, in the future, five and a subwoofer channel.

Gary: *Should all the speakers be identical?*
Steve: At least in the front they should be, especially if you're going to go to digital formats in the future. They don't have to be expensive speakers; we've done lots of mixes over three NS-10s. The only drawback is that less expensive speakers don't give you the tonal representation that you might want.

Gary: *What is the advantage of the Surround Channel to a mix?*

Steve: In mixing, it is amazing how little you can do in the surround channel to move the perception. People who are new to this often start getting crazy with the possibilities, and their mixes start to fall apart. It's better to stay with what you know and ease into it. You can move your mix back just a little bit, and add depth to it, without bussing things hard to the surround.

Gary: *What's the Dolby Matrix?*
Steve: Matrix is the term we use to describe Surround Encoding. The Matrix is the thing that takes four Channels of Audio, combines it to two Channels, and then restores those four Channels. The whole system is called the 4-2-4 Matrix.

Gary: *When composers show up with two track mixes, unless they're panned really hard Right and Left, everything seems to get sucked into the middle channel.*
Steve: When you do a stereo mix, and you place sounds somewhere between the Left and Right Speakers, you create a Phantom Center. With a Dolby Surround Mix there is a real Center Channel. The decoder within a certain region of that two-track mix is going to draw that Phantom Center sound towards the Center Channel. That's exactly why, for a music mixer, we provide the 4-2-4 box so they can hear what's going to happen.

Gary: *It must be difficult for mixers who are given two channel CDs to integrate them into a picture produced in surround.*

Steve: You can take a stereo mix, and widen it up with a little bit of time shifting and phasing. Basically, what the decoder does is it looks for Mono information, and that's what comes out the center channel. The information that is in phase is sent to the Left/Right channels, and the information that is out of phase goes to the rear.

Gary: What's the compatibility of a movie recorded in surround and played on a Mono system?

Steve: All the information is going to be there, except that which is hard surround, and rarely do elements go hard surround. When you go to Mono it is electrically summed, and, therefore, the out of phase stuff cancels out. As far as the front channel is concerned, it's a stereo mix, so it's just like combining a stereo mix into mono.

Gary: *What are the common traps and problems encountered with surround?*

Steve: The most important thing for a person dealing with surround for the first time is to get a good perspective on what he wants to do with a surround mix. The decoder can only do so many things, and there are limitations as to what sounds it can steer towards what channels. When you start doing too much, things do what we call "pile up" in the middle of the room. Stuff starts coming from everywhere, and you really lose that sense of a sound field, and get a kind of blob of sound. I try to tell people, start with a good stereo mix, and don't be discouraged if it collapses in the matrix at first. Listen to the mix in context, start moving things out a little bit, and spend time playing with your effects boxes.

Gary: *What kind of effects boxes?*

Steve: Your reverbs and delays, they often create phasing information. Listen to the mix through the processor, and hear where it goes. A lot of the Reverb and Ambience kind of boxes do a great job because in stereo, just by their nature, they create out of phase information, which widens up the image. In stereo the boxes give you a nice wide image with the ambience outside of the speakers. Then, when you go to surround, all that out of phase stuff starts to fold to the rear, which works great. Lots of people use the harmonizers or the BASE processor, but I don't think there's a magic surround box. It's really how you apply the effect.

Gary: *Do you place the unprocessed image in one place, and then bring back the effect in another?*

Steve: A lot of people will take the effect return and place it to the rear, and this technique can sound really nice. A good thing to remember is that most people should never really notice that there's a surround channel coming at them until it's turned off. That's when you know you've really done your job.

Gary: *What's the difference between Dolby SR, Dolby A, and Dolby B?*

Steve: Dolby A was the first professional noise reduction that we developed. It's used on films and in recording studios to add about 10 dB of additional dynamic range to a mix. It is what is called a Compander (Compressor/Expander). Dolby A type was Ray Dolby's first attempt at making a compander that didn't modulate. Modulation can occur, for example, when you have a low frequency signal that causes the compander to compress. Then, when the low frequency expands you also hear the high frequency expanding, causing a kind of swishing or breathing sound. What Dolby A type does is divide the spectrum into pieces, so that there's a compressor and expander for each of four frequencies of the spectrum.

Dolby SR goes a step further and uses a series of not only fixed bands, but sliding bands that wrap themselves around the dominant energy of a mix. It uses what we call the Principal of Least Treatment. This means it does as little as possible to the rest of the mix when it's operating around a given bit of energy, so there isn't the modulation sound.

Dolby B is the consumer version derived from the compander technologies. It takes a compressor, looks at where most of the sound is on the spectrum, and compands it with an emphasis on the higher frequencies.

Dolby C is essentially two B type processors stacked, but with their parameters changed to basically double the amount of dynamic range enhancement. C type, since it is fairly aggressive, is more susceptible to azimuth errors on cassette decks, which could cause improper decoding.

The last kind of noise reduction, which we introduced several years ago, is called Dolby S. It is basically a scaled down implementation of Dolby SR, for consumers. It is more tolerant of misalignments, and offers as much as 24 dB of additional dynamic range on a cassette tape. Many people can't tell a Dolby S cassette from a CD.

Gary: *What's the difference between Dolby and THX?*

Steve: Dolby is an encode process that combines four channels of audio to two, and, in the case of digital, takes six channels of audio into a single digital data stream. It puts this encoding on the film and takes it off. THX is really a set of standards for reproduction equipment. They help theaters to pick the right equipment so that they get a consistent playback. They're a certification process for equipment and theaters, and we're an encode/decode and quality control process.

Gary: *What about Dolby and Digital?*
Steve: The system for theaters is called Dolby Stereo Digital, and it's a process by which Left-Center-Right, and Left Surround and Right Surround are discreet, as opposed to matrix encoded. All this information is combined into a single digital data stream. That information is then printed in the area between the sprocket holes on a piece of film where a processor in a cinema can read it and reconstruct the soundtrack. With digital, you don't have the limitation of the Matrix, and 7kHz rolloff on the surround channels. This process, we call AC-3 or Audio Coding 3.

An interesting aspect of AC-3 is that it has been chosen by the Grand Alliance, which is putting together High Definition TV standards for the US. This means that HDTV, when it is introduced in '96, will deliver 5.1 channels of discreet audio, as well as provide downmix stereo pairs, mono, 3-1, 3-2, or whatever configuration you have at home.
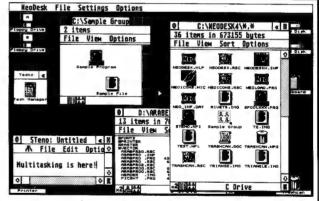
Gary: *What resources do composers and engineers have concerning Dolby?*
Steve: They can call us. We have a staff of engineers available in L.A. and New York and some in San Francisco that deal with composers and mixers all the time. When you get a product with a Dolby stamp, not only are you buying a technology inherent in that product, but a degree of quality, also. Anything with a Dolby stamp on it is actually tested and approved in our lab.

If you have any question about any Dolby product, you can contact Steve Thompson at (213) 464-4596 or FAX (213) 464-1845. If you have any questions or suggestions for me, you can contact me at:

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FAX: (818) 352-6559

The Big City Byte

by Howard Carson

"Oh waiter? OH WAITER! May I please have some service? Oh WAITER!"

It was a warm summer morning. The sun peeked out at slow intervals, from behind pillowed clouds. The patches of clear sky were pure blue. The humidity was low, and a gentle breeze served to cool the air slightly and ruffle the leaves on the boulevard trees. You could walk for hours without exertion and without perspiration. The gentle breeze had backed around to the north as well, and so was fresh and en-nervating. It was a perfect day for a peaceful stroll and a bit of casual shopping. Thus, I had arrived at my local Atari dealer in a mood to buy something. I could not have said precisely what however, merely that the expenditure of a little spare cash on some piece of software would probably please me immensely. Standing in the store minding my own idyllic busi-ness, gazing vacantly at the shelves of merchandise, I was aware of the presence of another customer, though the remains of the morning were too intoxicat-ing to permit much notice of him.

Until he spoke, that is.

"Hey you," he said in a sarcastic tone, "yeah, YOU baldy. Who do I have t' kill t' get some service around here?

Baldy?

I turned, of course, at the sound of his voice. It had been unnecessarily loud and had broken the mood. My good humor changed instantly to irritation, if not outright anger.

"Are you talkin' to me?" I asked, doing my best DeNiro impression.

"YEAH, I'M TALKIN' T' YOU, YA LAZY JERK! WHO THE HELL DO I HAFTA KILL T' GET SOME SERVICE AROUND HERE?

"You have to kill YOURSELF, you chucklehead!" I replied, yelling right back at him, "because then the ambulance and the police will come and you'll get GREAT service!"

"What the hell kind of salesman are you?" he asked, suddenly quiet.

"That's the point, chucklehead," I replied gratingly, "I'm NOT a salesman. I don't work here. I'm just an-other customer. I am also someone who might just pop you right in the mouth, if you don't keep a civil tongue in your head!"

He looked me up and down, decided discretion was the better part of valor, and did his best to look sheepish. He also mumbled something which I as-sumed was a slightly embarrassed, "Sorry, man."

At that moment, the proprietor came out from the storage and repair area at the back of the store, look-ing somewhat nonplussed. He had heard the brief ru-cus and came to see what the fuss was all about.

"What's the problem?" he asked of no one in par-ticular.

"What's the problem? What's the problem?" the other guy yelped. "I've been standin' here for 20 min-utes, for cryin' out loud. Ya disappeared into the back to get my ST, WHICH I HOPE T'HELL IS FIXED, and I've been standin' here coolin' my jets ever since!"

"Oh well," the dealer replied, "I'm, uh, sorry about that. But the phone rang. It was a regular customer and you know I couldn't just cut him short."

"What the hell are you talkin' about?" the guy said. "I'M a regular customer, and you had no trouble cuttin' ME short! What is it with you anyway? Do you think that because you've got my machine in here for repair, you suddenly don't have to give a damn? Is my ST some sorta' hostage, until I pay for the repair?

While his idiom was a little crude, this cat had, nonetheless, made three very important statements. The situation called for a sage or incisive comment to alleviate the tension, but no one had the words. The dealer blundered ahead anyway, informing his cus-tomer that the anticipated repair had not been com-pleted. At that point, of course, things got kind of bloody.

We shall not bore you with the gory details.

It is worthy of note here, that service (or rather Service), is a quasi art form that is rapidly losing ground to expediency and greed. Even vaunted retail-ers like TOAD Computers have developed some minor cracks; although in TOAD's case, it is probable that small faults have been the result of too much business and too few hands, not to mention the bizarre serv-ice(?) from the USPS. Best Electronics is sometimes hard to get hold of by phone, which is hardly an in-dictment. There are occasional complaints voiced about Computer Studio and Steve's Atari Sales, also, though the few gripes that have been expressed have been more closely related to disorganized buying on

the part of the customer, than disorganized conduct on the part of those dealers. There have been precious few complaints about the European mail order houses, too, except for the fact that hardware and software is far less expensive in North America; which gives new life to the old expressions, "Buy American" and "Buy Canadian." There is also no question that large numbers of complaints have been voiced about ABCO.

There are other, more trenchant kinds of Service, however. Primarily the sort of Service that is envisioned when we consider the most technical definition of the word: Repairs, in other words. If there is also an art to providing that kind of Service, there is by necessity a corresponding art to obtaining the best of that type of Service. Dopes and thieves need not apply, thank you.

It does not matter if a longstanding relationship exists between you and your computer dealer. It does not matter if you are a private or corporate customer. It does not matter how many or how few computers you own or use. You are entitled to poor treatment as long as your failure to ask certain questions is subconsciously evident to a dealer. There are a few dealers out there, who deliberately treat their customers poorly. There are even some reputable dealers and service centers that treat their best, most valued customers poorly, from time to time. We must never excuse poor service from sales people or service technicians. After all, those individuals feed themselves and their children with money earned by our patronage. We must be courteous and respectful in our demands, however, in addition to bringing an appropriate knowledge of our needs to any request for help or service. That means a simple and concise description of a problem, without suggestions like: "I'm pretty sure it's a DMA problem." That means documentation of a problem: what was on screen, what program(s) was (were) running, what error messages showed up, what accessories and auto programs were active, exactly what you observed when the system crashed, locked, bombed, rebooted, etc.

That *also* means not whining about legitimate service charges ($80 an hour for bench time is NOT legitimate in the U.S. or Canada, $45 plus a service deposit is). That means asking for a firm date of completion and cost (or a WRITTEN estimate). That means admitting you dumped your coffee through the air vents on top of your Falcon. That means your willingness to pay reasonable storage rates if you run

short of cash and fail to pick up your computer on or near the appointed date ($10 to $20 per week is acceptable; higher fees are highway robbery). That means not assuming that every dealer or service technician is a thief. That means not handing your dealer a filthy, grimy computer or hard drive, held together by nothing but tape and rubber bands, while demanding warranty service.

The dealers and related service providers must also tow the line. They must be organized enough to provide reliable estimates of completion time and cost. They must tell the truth when a customer asks if a particular part or item is currently in stock. They must never raise a chip in its socket, slightly, in the hope that oxidization will interrupt a critical electrical pathway, resulting in another repair (I'll bet you never heard of THAT one before; but it has been done. Recently, too!). Customer hardware must be returned in clean, presentable condition; no matter how it was brought in. Dealers and service people must speak up if a needed repair resides beyond their abilities. They must find ways to show appreciation towards loyal customers: a willingness to find difficult to locate items, discounts on high-margin items, first looks at new merchandise and a lousy cup of coffee once in a while.

Several recent examples of unbelievably long service and mail order times, have prompted complaints from quite a few Atari users. Among the more notable: A Toronto man purchased an external floptical drive and then waited nearly seven months for the dealer to provide someone to install it properly. Although the customer was ineffectual in his protests (and a technical tyro), the dealer was infinitely more culpable, because of his failure to take control of the situation, find a technician to remedy the problem and earn a happy customer. The customer eventually resolved the aggravation with the help of a local techwizard (ironically) closely associated with the dealer. A Buffalo man recently waited several months for TOAD to ship a back order. The man had promised to call TOAD to confirm, but never did so. When confronted with his omission, the man replied, "Well when they didn't hear from me, why didn't they just ship the stuff?"

Anybody have an answer to THAT one? You do? Good! Call the Buffalo man and let him down gently.

There is obviously no mystery to any of these dilemmas. Common sense reigns supreme whenever human beings interact in ways that are considerate and logical. The forewritten examples and advice

should lend themselves well to practical problem solving. But it must also be remembered that such practical application requires the employment of some force of personality. Customers and dealers, alike, must express themselves in ways that are intelligible to each other. Long, detailed explanations about Page Mode memory do not clarify problems for customers who don't know a SIMM from a Power Supply. Customers who tell a dealer, "Well it sort of, like, um, just, uh, you know, kind of locked up on me," leave a dealer no choice but to start from point 'A' and proceed logically to point 'Z'; or until such time as the problem is found and resolved, all the while charging accordingly.

Trust must be earned in the service business. An old, good reputation on the part of a dealer, must never be allowed to suffice for today. A smart dealer slaps himself in the face every morning, gets on top of his game (no matter how crappy business really is), and deals with his customers in as enthusiastic a manner as possible. A smart dealer knows that his first million will be earned because he fought long and hard to buy parts, service and inventory at the lowest possible prices, to resell at fair market value. A smart customer organizes his needs in a way that does not give even a deliberately irrational dealer any opportunity for malfeasance.

Do not for one moment believe the foregoing difficulties to be anything new, or otherwise an indication of an irredeemably decadent society. For these difficulties have been with us since the beginning of recorded history. In truth, they have been exacerbated by exigent circumstances that exist in the contemporary marketplace. It certainly cannot be demonstrated that people are any more or less honest than they were 300 years ago. We haven't learned to communicate any better; merely found more exotic means. The debate used to revolve around whether a customer had ordered three wagon loads of manure, or four. The debate has metastasized into a heartfelt discussion over whether a customer ordered 4 meg of RAM and a TOS upgrade, or just 4 meg of RAM.
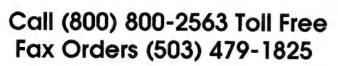
Careful examination of both arguments reveals both circumstances to be equally redolent of, um, manure.

Pass the shovel, get a receipt for anything you bring in for repair. Speak clearly, concisely and descriptively. Caveat Emptor.

M.A.G.E.

Majic Arcade Graphics Engine

Review by Larry Lefebvre

In the Beginning

When I was first asked if I wanted to do a review on *M.A.G.E.*, my first gut reaction was to say no. Even though I have programmed numerous business applications in various languages where I work, I lacked the time, patience, and understanding that it takes to create a well thought out game. However, after a few days passed by with the *M.A.G.E.* package still on my desk, I began to scan various portions of the manual. The next thing I new, I had my old trusty word processor all loaded up and raring to go.

This package is certainly one of the most powerful and complex pieces of software to arrive in the Atari community in quite some time. Whether or not the program is as easy to use as MajicSoft says it is, depends on the amount of direct experience that you may have with GFA BASIC and game designing as a whole. When you are done reading this review, you should be able to make up your own mind as to whether or not this is a program that would be of interest to you.

Due to the magnitude of this package, it is necessary to split this review into two parts. In this issue, we will start with the three major editors: Character, Animator, and Map.

The Basics and Other Things

The basic system requirements for *M.A.G.E.* are any ST compatible computer (including the Falcon) with a minimum of 512K of RAM, at least one floppy drive, and a color monitor capable of ST Low resolution mode (320 x 200 with 16 colors). No other mode will work correctly with *M.A.G.E.* The makers of *M.A.G.E.* strongly recommend at least one megabyte of RAM and a hard drive with at least five megabytes of free disk space.

M.A.G.E. comes on five disks, a 174-page manual, and two other disks–the GFA BASIC Interpreter and Compiler (version 3.5E), and the GFA Assembler/Debugger (version 1.5). Also included is a collection of small-medium-large sprites, and two shareware programs, one for creating inlines and another for creating music. Both GFA and the shareware programs must be registered by you if you are going to create a game with *M.A.G.E.* You should have some computer and structured programming experience, preferably with GFA BASIC programming, before attempting to write your own game using *M.A.G.E.*

The GFA disks that I received with the package were unreadable, but, fortunately, I already owned this GFA BASIC. After checking with John L. Stewart of MajicSoft, he informed me that about one-third of the GFA disks that were shipped with *M.A.G.E.* were bad, but they have since been replaced. If you do happen to get some bad GFA disks with this package, call MajicSoft and ask them for replacements.

The package also includes three games, complete with source code, to help you in your uphill battle to learn and use *M.A.G.E.* These games are *Quick Game*, *Sleuth*, and *Thurg 'N Murg*. *Quick Game* is claimed to have taken 20 minutes to write, so it doesn't do much. But the other two games each have very good graphics and game play.

M.A.G.E. is actually a GFA BASIC file (shell or template) composed of many unique subroutines, each performing a specific function. The file is heavily documented throughout. Creating a game consists of following the directions and adding code in various areas of the file with the majority of the code being for the game itself.

Installation

If you have a hard drive, installing *M.A.G.E.* is the easiest part of this whole package. Simply run the "install.prg" on the master disk, choose your destination drive and follow the prompts. Make sure that you have at least four to five megs of free disk space available on the drive that it will be installed on.

The Big HOOK

I really do not like to dwell too much on license agreements, but due to the strict rules of agreement being set by MajicSoft, I must make an exception be-

cause I feel the consumer should be made aware of them. So, with no further ado, "Let the Buyer Beware."

The M.A.G.E. Software License Agreement, among other things, requires you to obtain a license number from MajicSoft for each product that you intend to release commercially. MajicSoft will charge you $1,000.00 per year or a lifetime fee of $2,500.00 for the number. Besides having to pay for the license number, MajicSoft requires that you display the license number in the manual and acknowledge the use of the *M.A.G.E.* design system.

If you would like to release your product as shareware, then you will have to follow specific guidelines in order to obtain permission and obtain a license number before you release any product (MajicSoft states that they want to set certain standards for material developed with their system). These guidelines are as follows:

1 - A license number must be obtained for each game that you produce with the *M.A.G.E.* from MajicSoft by sending a copy of the finished game, name, address and telephone number to them. This license number is free.

2 - Your game must maintain MajicSoft standards in play ability, function, and overall design. Games which do not function correctly and reflect badly on the M.A.G.E. system will be rejected, and will not be distributed under any circumstances.

3 - A minimum donation of $5.00 must be asked for each game produced. Both this fee and the license number must be reflected in the documentation.

These are the only two methods of distribution allowed by MajicSoft. MajicSoft will not allow you to make your game available for free through public domain software, except in the form of a demo after permission has been obtained from them. MajicSoft also reserves the right of first refusal to all non-commercial programmers, which means you can't send your game to a BBS, person, etc. before you obtain a license number from them. What this all means is that you must decide, before you buy this product, how you would like to distribute your game and if the requirements by MajicSoft are acceptable to you.

These are some of the strictest agreements I have ever seen in a software package of this type. There are other agreements, too, so if you can, find someone who already owns *M.A.G.E.* and read the license agreement thoroughly before purchasing the product.

Docs, Docs, Docs

The documentation has a lot of valuable information in it, but it also contains some mis-statements, typos, omissions, etc., some of which can give you quite a head scratching. The 174-page manual is oriented more toward the experienced programmer rather than the novice. The experienced person should be able to catch most of the errors, but the less experienced person may find himself being led down the wrong path a few times, which can be very frustrating.

If you are a novice, there are many new terms which you will have to understand in order to program using the *M.A.G.E.* product (e.g. Sprite, Character, Mapping, VSYNCS, Physical Screen, etc.). Each of these terms is explained in the manual, but it may become necessary for the novice programmer to read other sources for more information and to experiment with them. The manual includes an index and chapters on the editors, screen handling, characters and sprites, collision checking, sound effects, M.A.G.E. command listings, and a discussion of the three games that come with the M.A.G.E. product. It is missing an index.

There are a lot of areas in the manual that can be improved, but the experienced programmer should have no problem using it as a guide to building the perfect game.

The Editors Are Coming

M.A.G.E. comes with a Character Editor, an Animation Editor, and a Map Editor. These programs create specific data files for your graphics, maps, and sprites that are required by *M.A.G.E.* Before we start to look at each of these editors a little closer, it is necessary to point out that some of the manual's explanations and descriptions of the commands and functions are either confusing or wrong. Therefore, in an effort to try and remove this bit of confusion, I will try to explain the use of these commands and functions more concisely. This will, in no way, accurately show all of the manual's errors, but can be used as a guide as far as what to look for.

It is important to look and get an understanding for each of these editors before actually using them productively, because this is where the majority of your non-programming related work occurs. Experimenting with the editor while following along with the manual may help to make things clearer.

Each editor has its own unique menu to load, create, and save its data. I am curious as to why MajicSoft chose to be so inconsistent from one editor to another. It seems that a similar interface between editors would make things less confusing for *M.A.G.E.* users. This should not be a problem for anyone, but it is annoying when having to move from one editor to another.

You are presented with the *M.A.G.E.* welcome screen each time you run one of the editor programs. This screen disappears after about five seconds (or you may click either mouse button to clear).

What-a-Sprity Character

The Character Editor produces two types of data files, one for sprite images (*.SP1) and one for characters (*.CP1). The sprites are used to represent moving things and characters are used for the background graphics and fonts. The M.A.G.E. Character Editor allows up to seven pixel sizes for you to choose from when creating a sprite or character. The sizes range from 8x8 to 32x20 and are sized to fit into the screen evenly (see figure 1). The smaller pixel sizes will allow you to place more data onto the screen and enable the sprite to move faster. The larger pixel sizes have the opposite effect. As you can see, it would probably be best to choose a pixel size somewhere in the middle (MajicSoft recommends a size of 16x10).
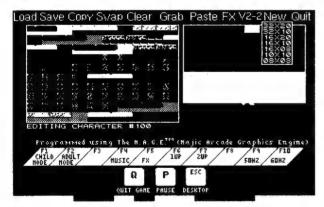
Figure 1

Each sprite or character file (*.SP1 or *.CP1) saved represents one bank, each containing up to 200 cells. *M.A.G.E.* allows multiple banks if more than 200 cells are needed. Each cell contains a single sprite or image, which may be copied or moved to another cell, or deleted altogether. Any of these images may also be copied (pasted) to the background screen for creating screen background graphics or checking mistakes in your program. Since a bank may have up to 200 images, only a group of images can be shown at one time. To view more of the images, click on the

"V#-#" menu. Each click will denote another group of images, and eventually rotate you through all of the available groups.

Only one ".SP1" or ".CP1" file may be loaded at one time, along with one picture file (optional) for the background. Five picture format types are allowed: .PI1, .PC1, .NEO, .32K (Raw Data), and .PAL (16 word color palette). A color palette is located at the bottom of the screen. This palette will be replaced each time you load in one of the picture file formats listed above.

The editor allows you to save your ".SP1" or ".CP1" files and any picture that may have been modified. However, only three of the five formats allowed for loading may be used to save the revised picture. These include .PI1, .32K, and .PAL. The ".PC1" format that is missing would have been particularly useful in the GFA "inline" process, which we will talk more about later.

Any one of the sprite or character files that came with the M.A.G.E. package can be used, moved, modified, or deleted by you when creating your dream game. If none of these files appeals to you, you can create your own either by manually doing each one in the editor (ouch, this is the hard way) or by creating them in *Degas* (this is the recommended method). After saving your *Degas* picture, load up the character editor, select NEW from the menu and choose a pixel size (16x10 is the recommended size). Next, load in the *Degas* picture file (this changes the color palette), and grab the sections of the picture you want by selecting "Grab" from the menu. The program allows you to grab anywhere from 1x1 image blocks to 3x3 image blocks and place them sequentially in the cell that you click on from that cell forward. As you can see, it not only becomes real important for you to create these sprites beforehand in *Degas*, but also to draw them so that they fit evenly into the image block sizes allowed (See figure 2).
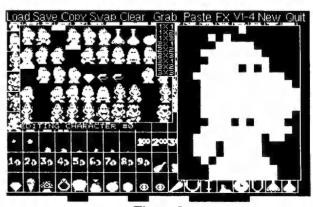

Figure 2

The "Fx" menu options will allow you to move, rotate, and flip a sprite or character that is clicked on. These simple, yet clever, options will make it a lot easier for you to manipulate your sprites to achieve the effect that you want. There is an undo function, which undoes the last change made to the image in the cell. The manual incorrectly states that it redraws the original image in the cell.

A very important and powerful feature of the "Fx" menu is the "Offset-Grab" Option. This option can be confusing, at first, but can save you tons of time when you are creating sprites and characters from scratch. This allows you to load in all of the images from your background screen into a group of cells at once, thus eliminating single grabs. For this to work properly, you must have drawn a grid for your images with a 1 pixel spacing between images in both directions. Each image must be equal to the size of a cell. The manual is somewhat confusing in its explanation of this option. If it had been done on a step-by-step basis, along with a clearer explanation, things would have been a lot less confusing. It's not that the manual is wrong, it is just that it is not quite right.

At any time during the revising and adding of various images, it is important to remember that the image for cell #32 must not be used because the Map editor uses this image area for erasing.

See How They Run

Upon entering the Animator editor, you will see a 3x5 menu with headers for each column (See Figure 3 and Table-2). However, the manual indicates a considerable difference table setup (See Table-3). This can be very confusing when the manual indicates the editor one way, and the editor shows something quite different.
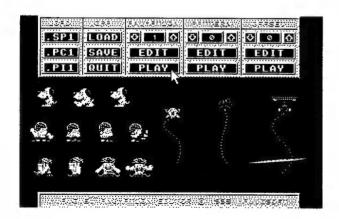
Figure 3

Table 2: The Animator Editor Program

LOAD	.GPA	ANIMATION	PATTERN	OFFSET
.SP1	Load	UA-DA	UA-DA	UA-DA
.PC1	Save	Edit	Edit	Edit
.PI1	Quit	Play	Play	Play

Table 3: The M.A.G.E. Manual

SP1	LOAD	ANIMS	PATTS	OFFSET
Load	SP1	UA-DA	UA-DA	UA-DA
Save	PC1	Make	Make	Make
Info	PI1	Play	Play	Play
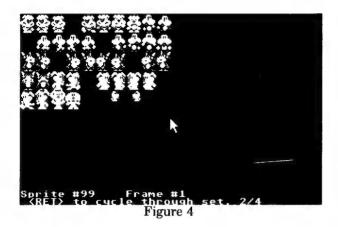
The "UA-DA" for each table stands for "Up-Arrow" and "Down-arrow." As you have already noticed, there are differences in each column, but the largest differences appear in the first two columns. Except for the column titles and the "Quit" vs "Info" boxes, these two columns have literally been swapped around.

The Animator Editor will allow you to load in a sprite data file (.SP1) and create various animations, patterns, and offset movement sequences for your game. A total of four data forms can be created and processed by this animator. These are listed below with a brief explanation of each one:

1. Animations: A repeating sequence that will be played back when called.
2. Patterns: A fixed path movement that you draw on the screen.
3. Offsets: Similar to patterns except they do not represent actual coordinates, but directions to move each step.
4. Offsetf: Similar to the offsets, but with the advantage of being able to follow another sprite while performing an offset.

You should experiment with these data forms in order to get the correct movements for your game. You can only get out what you put into it.

To create these animations, load in your sprite data file (.SP1) previously created in the character editor. Click on the up arrow in the animation section to slot #1 and then click on "Edit" from the menu. The first groups of sprite images will be displayed (See figure 4). To view more groups, press the Return Key. the bottom of the display tells you what frame you're on. To add frames, click on the desired sprites with the left mouse button (multiple clicks on one sprite will slow down the animation) and press the [ESC] key when done. You will then be presented with a box for you to enter a description of the animation, which can be used for later printouts. This is a very good feature, because you no longer have to try to remember which animation is which or search through lots

Sprite #99   Frame #1
<RET> to cycle through set. 2/4

Figure 4

of scrap paper. To view your animation, click on "Play" from the menu. A maximum of 100 animations can be performed with a maximum of 101 frames per animation.

Pattern recordings can be made by either the mouse or the keyboard, which allows for a higher degree of precision. A pattern, offset, or offset recording can hold no more than 500 recording segments. The Animator will hold 100 of these pattern recordings. Each recording should always be tested completely before going on to the next one.

When doing a pattern or offset recordings with the keyboard, you can press the arrow keys to move the sprite around the screen and press the space bar to plot a point. At any time during the pattern or offset creation, you can press "F1-F10" to select how many pixels to move at a time with each arrow key press. The function keys allow you to achieve smooth transitions from slow to fast. All of this was not mentioned in the manual that I received, but MajicSoft has included this information in a read-me file from one of their latest updates.

The Animator editor also has the ability to load in two different types of picture formats (.PC1 or .PI1) to be used as a background when creating the various animations. This allows you to quickly visualize any errors that might have been introduced in the animation recordings.

Map Those Caverns and Hills

The Map editor will load in a character data file (.CP1) and create various screen maps. These maps can be used to create background screens for each screen and/or level during a game.

After loading a character data file and choosing "Edit" from the menu, you will be presented with the "Character Selection Menu" where the maps are to be drawn. At first glance, this menu may look empty if your first few character cells are empty. Actually, the top line of the screen is a scrolling representation of the current character data image file that was loaded in. Moving the mouse to the left or right of the screen will cause the images in each cell to scroll in their respective directions.

To begin creating a map, point to one of the images (located at the top of the screen) that you want and click the left mouse button. This makes that character cell your current drawing pen. In this mode, the left mouse button may be used for drawing and the right mouse button for erasing (cell #32). The Map editor can handle screens anywhere from a 1x1 to 16x16. Multiple screens can be created by using the left and right arrow keys while in the drawing mode. Each click of the right mouse button places you in the screen to the right while each click of the left mouse button places you in the screen to the left. The Escape Key is used to exit the drawing mode, after which you may press the right mouse button to return to the GEM menu screen.

The function keys are used to activate different functions during drawing. Some of these include block sets, auto scroll on/off, search and replace, etc. Pressing the help key will bring up a menu reminding you of these commands. The Map editor will allow you to save any screen as a "PI1" picture format only.

The Verdict, Please

To summarize, the manual's attempt to convey the necessary steps and information required to use these three editors in an efficient and productive manner falls short in many areas. However, with patience and a good amount of determination, you should be able to master these editors in a reasonable amount of time despite the manual's drawbacks. The manual should be looked upon as a reference, instead of something to avoid.

The editors themselves are excellent and easy to use, once you understand the basic steps required to perform the various functions. They will undoubtedly save you lots of hours in sprite and character creations, producing animations, and background screens, not to mention programming.

Wrapping It Up

Well, that is it for Part 1 of this review. Next time, I will cover the Inline Editor, the M.A.G.E. source code, and various terms and definitions. Until then, keep the Atari spirit alive and have fun.

The HP LaserJet 4ML Postscript Laser Printer

Review by
Scott R. Chilcote

When my wife and I needed a good laser printer to use with the Falcon 030, we decided to look for a PostScript laser printer that was also able to print HP LaserJet documents. This would allow us to use *PageStream*, as well as the *AtariWorks/SpeedoGDOS* software provided with the computer. Since we aren't fabulously wealthy, we hoped to find what we needed for well under $1000.

The TI MicroWriter was our initial choice, since it had PostScript and HP LaserJet II compatibility, and cost under $750 in local stores. After a closer look at this printer, we found that it had only 19 of the 35 standard PostScript fonts, and only two megabytes of internal RAM (4 meg is usually recommended for graphics printing). While it could be expanded, the places we saw the printer for sale didn't have the upgrades, and couldn't even tell us what they cost. We decided to keep looking, and eventually settled on the Hewlett Packard LaserJet 4 ML.

The 4 ML has the full PostScript font set, 4 megs of RAM, and a 18.5 MHz RISC processor. It has PostScript Level II, and enhanced PCL-5 (HP LaserJet II) emulation. Its Canon engine prints at up to four pages per minute, and gets about 3000 pages per toner cartridge. The 4ML has a slot above the paper tray that accepts envelopes and other forms (max. width 8.5"); if they're too stiff to bend, a door in the back may be opened to give them a straight path out of the printer. The printer also has the advantage of being small and light; in our home, flat surface is definitely at a premium!

The print quality looks a bit sharper than many other 300 DPI printers, due to something HP calls Resolution Enhancement technology (REt). This feature allows the printer to vary the size of the dots that it prints in order to improve the appearance of diagonal edges. Figure 1 gives a greatly magnified example, shown with and without REt. While it has no effect on vertical or horizontal lines, it can definitely make a difference in graphics and text printing. Different levels of REt can be selected, as well as the overall size of the dots being printed, or density.

There are some other advanced features built into this printer. One is that it has both the Centronics parallel interface required for the Falcon, and an AppleTalk compatible network port, as well. The printer knows how to switch between these "on the fly" if both of the connectors are in use. It can also automatically switch between PostScript and HP LaserJet emulations; there's no need to change any settings. In addition, the printer has an "Economode," which uses half as much toner to print a page; this stretches toner cartridge life when draft quality print is all that's needed.

An unusual characteristic is that the HP 4 ML lacks an on-off switch; once connected to a power outlet, the printer

Magnified Diagonal Edge Example

With REt Turned Off

With REt Active
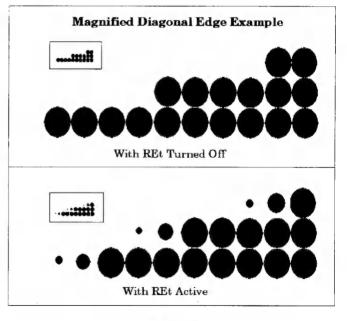
Figure 1

runs for a few minutes, then lapses into "intelligent off" mode. It waits until it gets a print job, powers up, and then starts printing pages automatically. This saves power, and extends the life of one's printer.

There are a few shortcomings to this printer worth mentioning. For example, there is only one control on the HP 4 ML, a button that is used to print the test page and font pages that are built into the printer's memory. Next to the switch, there are a series of diagnostic lights for Error, Paper Out, Data, and Ready. All other features of the printer are accessed via software only, and that's the sad situation... the software that HP provides works only on MS Windows or a Macintosh!

How were we going to configure the extra features of this printer, such as Economode or REt, when we don't happen to own a Mac or a PC?

The solution lies in finding out what the printer codes for these features are. Anyone who's read through the manual for a dot-matrix printer knows what printer codes are. They are a series of characters that usually begin with an "escape" symbol (ASCII 27), that commands the printer to use an internal feature. In the early days of word processing, users often had to find out what the codes for bold face, underlining, and other such features were, and embed them into their documents to get the printer to use those features. Various programs for the ST allow users to send these codes to their printers directly. One that we have for the Falcon is a shareware desk accessory called *Print!*, from Third World Software. If we could find out what these codes were, we could send them to the printer using one of these utilities.

Unfortunately, computing in the PC/Mac realms has reached the point where users never see these codes; in fact, HP did not even include a list of them in their otherwise thorough manual. What we wound up doing was using a fax machine to access HP's Fax Information Retrieval Service, to download a list of the codes I needed. It can take a lot of wandering through phone menus and printing index pages to get the items you want, but it's very good of them to make this, and lots of other information, accessible. To those who buy the 4 ML, the item you need is document number 1687, on Printer Job Language (PJL). Now that we have the codes, we can find out which program sends them the most conveniently, or write one ourselves for the purpose.

As an aside, I did get a chance to load the HP software for the printer on a Mac Classic II and look it over. It's really good; there's an electronic guide that has a complete manual's worth of information for using the printer with the Macintosh. The configuration program lets the user select all of the printer's features from dialog boxes, which have graphic images showing the effect of each selection. If this only ran on the Falcon 030!

Besides this wishful thinking, everything else about using the printer has been straightforward, pleasant, and without

Advantages:
☆ Resolution Enhancement technology for improved 300 DPI printing
☆ PostScript Level II and HP LaserJet II Compatiblity
☆ Accepts Standard Envelopes and Forms through front slot
☆ Centronics parallel and AppleTalk network interfaces

Disadvantages:
★ Configuration Software is for Macintosh and MS Windows only
★ Makes house lights flicker

surprises, as it should be. We've tested the printer with PostScript output from *PageStream*, and each page printed flawlessly. Downloaded CompuGraphics fonts, such as CS Times and Garamond Antiquia work fine, and large embedded graphic images print sharply. In one test, we printed a PostScript file to disk, and then printed the file from the GEM desktop; this is a handy way to postpone printing, and it works well.

We next tried printing from *AtariWorks* using the *SpeedoGDOS* HP LaserJet printer driver; again, pure success. We've even used *PageStream* to print standard envelopes, using the 4 ML's straight-through feeder. The printer does a nice job, but has a tendency to glue the envelope together slightly from the heat of printing. Landscape print jobs, we noticed, seem to take about twice as long to print as portrait.

One final item worth mentioning, though, is discussed in HP's manual. During printing, the lights in our computer room and adjoining rooms flicker noticeably. The effect is reminiscent of candles. HP says that this is a normal result of its energy saving instant-on fuser, and causes no harm whatsoever. Considering the fact that I've seen other, older laser printers dim house lighting significantly, this seems worth getting used to. Perhaps we could plug our Chrismas lights into the same circuit in December, and save all of our big print jobs until then!

In summary, the HP LaserJet 4 ML makes as nice a laser printer as can be expected for the Atari Falcon owner who needs PostScript printing. We've seen it discounted as low as $930 since buying it, but one has to expect prices to drop when it comes to computer merchandise. If you find the features of this printer attractive, but don't need PostScript, take a look at the HP 4L. This printer looks the same as the 4ML, but sells for under $700, discounted.

If you buy one of these, just remember to fax those pages from HP FIRST if you want to use the extra features. Such is the lot of the Atari owner; we may be giving up PC compatibility, but we don't have to settle for MS Windows, either!

Triple Yahoo

Review by Scott Tirrell

Introduction

Triple Yahoo is a new shareware game for all Atari 16/32 bit systems from Stuart Denman at Stusoft. I knew that I had downloaded the correct file when I booted YAHOO.APP and was greeted by a dialog box in which two smiley faces shouted, "Yahoo, yahoo, YAHOO!!!!" at me. Nope, there really couldn't be any mistake about it.

Triple Yahoo is a *Triple Yahtzee* clone. *Triple Yahtzee*, for those who don't know, is a simple dice game for multiple players. The object of the game is to get the highest score (no, really!). The way to achieve a high score is to get certain combinations of five dice that you roll. The player gets to roll the five dice three times in a turn with the option of "keeping" certain dies as they are, much like in poker. In this way, the player tries to get combinations, such as four of a kind, full houses, number categories (ones, twos, threes, etc.) and yahoos, all dice being the same. The player chooses where he wishes to put his scores on a scorecard made up of three columns. The three columns have the same categories, but the second col-

umn is worth double the amount of the first column and the third column is worth triple that of the first column. Therefore, poor rolls should be placed in the first column. This setup allows for a lot of strategy and the player faces many tough decisions.

Compatibility? Yahoo!!!!

The manual states that *Triple Yahoo* has been tested on a TT030, a Falcon030, a Mega STe, a 1040ST, and even a Nova graphics card. The manual also states that *Triple Yahoo* runs under *Geneva* and *MultiTOS*. I can account for the Falcon030 with *MultiTOS* part. It runs flawlessly. This kind of compatibility is very much appreciated. No Backwards, no worries....

Sound? Yahoo!!!!

Triple Yahoo comes with over 130K of digitized sounds. The first taste of these wonderful sound effects is at bootup, as I mentioned earlier. The sounds in the rest of the game are equally good. You'll hear a mellow "cool" when the dice fall your way or a exasperated "NO!" when the die needed doesn't materialize. Another classic sound is an ominous "boom-ba-boom-boom" when you chalk up a zero on the ol'scorecard. The sounds are very configurable by the user. The game can play the sound effects, comments, all, or none. Not only that, but the game can play the comments 100%, 75%, 50%, 25%, or 10% of

Yahoo Game Windows

High Scores

	PLAYER	SCORE	DATE
1	Triple Yahoo	1500	9 5 94
2	version 1.0	1400	9 5 94
3	by Stuart Denman	1300	9 5 94
4	(C) 1994 StuSoft	1200	9 5 94
5	I'm shareware!	1100	9 5 94

Dice

ROLLS: 1

Roll

Score Card

	Paul	Lefebvre	
Ones	1	0	3
Twos	2	6	8
Threes	9	6	6
Fours	8	12	12
Fives	10	10	10
Sixes		18	24
Subtotal	30	52	63
Bonus		0	35
Upper Total	30	52	98
Three of a Kind	20	17	30
Four of a Kind	20	24	29
Full House	25	25	25
Small Straight	30	30	30
Large Straight	40	40	40
Yahoo	50	50	50
Chance		19	24
Yahoo Bonus	100	0	100
Lower Total	285	205	328
Combined Total	315	257	426
1-2-3 Total	315	514	1278
Grand Total		2107	

the time! All of these settings can be saved in a configuration file.

The Game Itself? YAHOO!!!!

As a fan of *Triple Yahtzee*, I like the game that *Triple Yahoo* emulates. However, I must ask myself, "Why not just pull out the *Triple Yahtzee* game itself?" Well, apart from always losing the physical dice from my Triple Yahtzee game, *Triple Yahoo* has many features that makes it a joy to play. First of all, everything in *Triple Yahoo* is configurable. Don't like the font? Pick any font from your installed SpeedoGDOS to spiff things up (Wingbats not recommended). Don't like the colors? Change 'em. Another feature one can love *Triple Yahoo* for is its use of GEM and windows.

Triple Yahoo does not hog the screen, but uses three windows-one for the dice, one for the scorecard and one for high scores. This system is perfect for *MultiTOS*. In fact, right now *Triple Yahoo* is resting nicely in the background while I type this in *Marcel*.

Finally, the sounds and graphics make the game very enjoyable. No more annoying rattling of dice in a cup; just fun samples, which can be turned off. Also, you'll never have to worry about having those scoring sheets in *Triple Yahoo*. Having the computer do the scoring is convenient and friendly to the environment. The computer also keeps track of high scores, which gives a solo player something to "roll" for, making the usually social game of *Yahtzee* fun for just one player. However, if friends are handy, up to four can play *Triple Yahoo* and the game really heats up then. My friend was convinced that the computer was against him! (Well, I had fun....)

Get This Game

I am a firm believer in using a computer only when it does things better than conventional methods. For example, I would not buy a CD-ROM drive merely to play audio CDs if I already had a CD player. *Triple Yahoo*, though, greatly improves on the classic game of *Triple Yahtzee*. As you can see, I gave it a "Triple Yahoo." It is well worth the shareware price of $10-15 (the author set the price as a range). I only hope that enough people support Stusoft so that they can continue releasing great software for our favorite computer.

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